

**AN ANALYSIS OF THE IMPORTANCE OF SEMEN IN INVESTIGATION OF RAPE
CASES AT VENDA (THOHOYANDOU)**

by

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ABSTRACT

The use of technology and science in the investigation of crime plays a major role in the resolution of complicated cases that cannot be solved by means of other available evidence during the prosecution of rape cases.

The study details the importance of semen in investigation of rape cases and emphasizes that semen discovered during the investigation must be analysed in all cases of rape and used as evidence in court. The use of semen as evidence in the investigation of rape cases is a modern intervention aimed at producing evidence that is reliable and relevant.

KEY TERMS

Semen

Prosecution

Physical Evidence

Rape

Evidence

Forensic Investigation

Suspect

Victim

Deoxy-ribonucleic acid;

Locard Principle

LIST OF ABBREVIATIONS

CODIS	- Combined DNA index System
DNA	- Deoxyribonucleic Acid
MTN	- Mobile Telephone Network
NPA	- National Prosecuting Authority
PAS	- Periodic Acid-Schiff (PAS)
PERK	- Physical Evidence Recovery Kit
SAPS	- South African Police Service
UV	- Ultraviolet

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Thanks for the friendship and motivation of Mr Aluwani Edson Fungisani, and for his support throughout my academic journey, from my undergraduate studies. Without him, this dream could have faded away.

God bless you all.

DECLARATION

STUDENT NUMBER: 33224668

I, Ratshilumela Mulaudzi, declare that AN ANALYSIS OF THE IMPORTANCE OF SEMEN IN INVESTIGATION OF RAPE CASES AT VENDA (THOHOANDOU) is my own work, and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references in the text as well as in a List of References.

RATSHILUMELA MULAUDZI

DATE : 27 February 2020

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CHAPTER 1: GENERAL ORIENTATION

1.1 INTRODUCTION

Stuart and John (2009:285) define semen as a biological fluid that contains a number of constituent materials such as biological cells (a unit of life), amino acids and glucose. Most importantly, the authors (Stuart and John (2009:285) point out that semen is a living, reproductive organism, secreted by a male sexual organ.

Semen like other DNA samples play a major role in the investigation of rapes cases but the researcher observed that in most cases that were tried in Thohoyandou all other available evidence were given first preference to prove the case and semen were less considered.

This study will focus on the importance of semen as evidence in the investigation of rape cases and the challenges faced by court during the investigation of rape case and how those challenges can be resolved.

Observation of criminal prosecution in South Africa reveals that semen can serve as evidence in the prosecution of rape cases. In *S v Nkwanyana*, for example, rape was proved when “it was conclusively proved that the appellant had been in contact with the respondent as semen was found on the external anal swab taken from the complainant” (*S v Nkwanyana*).

Similarly, semen analysis helped to convict a serial child rapist, namely Nkhumbuleni Tshiedzaedza. In the *S v Tshiedzedza*, the accused was convicted on four counts of rape and four counts of robbery. The allegations were that the accused raped two female minors, one of whom was 14 years old and the other one a 16 year old. After raping them, he robbed them of their cell phones.

In another case, the same accused, Nkhumbuleni Tshiedzaedza, raped a girl under the age of 16 and further robbed her of a cell phone. In another case, the same Nkhumbuleni Tshiedzaedza raped a 19 year old girl and also robbed her of a cell phone. All these cases occurred around the Vuwani area, and the victims could not identify the suspect since they did not know him. One of the cell phones that had been stolen was found in possession of the maternal aunt of the accused, about four months after the date of the incident. The cell phone was discovered after the police had made

requests for assistance from the Vodacom/Cell C/and Mobile Telephone Network (MTN) inquiries (in accordance with Section 205 of the Criminal Procedure Act 51/1977), after which the said cell phone was found to be in use, but with a different SIM card. The police used that number and eventually found the aunt, who then revealed that she had been given that cell phone by the accused. Police traced the accused and found him, where he was employed at a local mortuary.

After arresting the accused, the police proceeded to extract a blood sample from the accused with the assistance of a professional medical practitioner. The Deoxyribonucleic Acid (DNA) results analysed by the Forensic Science Laboratory linked the accused to all four cases of rape. As a result, the court convicted the accused on all counts of rape, and he was sentenced to two life sentences for the two victims who were under the age of 16 years at the time of commission of the offences. In regard to the other two counts of rape, the accused was sentenced to 12 years of imprisonment on each count; and 15 years on each of the four counts of robbery. The inference is that even though the victims did not know nor were they able to identify the perpetrator, the accused was convicted and sentenced on account of the results of the DNA analysis. Noteworthy is that these crimes were committed between the year 2006 and 2009, the accused was arrested in 2009, and the case finalised in May 2010.

On account of the preceding review, this study explores the criteria that must be followed before a court can decide whether semen should be considered as evidence or not. In the same vein, this academic enquiry investigates why semen is analysed in some of the cases reported whilst in others it is not.

1.2 RESEARCH PROBLEM

Creswell (2009:18) asserts that an intellectual enquiry, in particular with regard to a research problem, is a matter that has elicited a scholarly interest for a solution to be found. A multitude of these exist, and for this enquiry, the research problem is chiefly the phenomenon in respect of which there are inconsistencies in the use of semen analysis as evidence in court. In some instances, semen analyses are conducted and the results are used in court, as the case of Tshiedzaedza shows. In other instances,

semen analysis is not used in court – to the detriment of justice. Regarding the latter, a rape and murder case, namely the *S v Makhakha*, is a classic example, for in this instance the semen was not used as evidence in court.

This research problem was inspired by the situation on the ground, where rape cases have become part of the daily challenges vexing prosecutors. The researcher was the Head of Security at the University of Venda and had attended several cases where female students had been raped, and medical examinations had not been conducted. Indeed, if medical examinations had been conducted, semen would have connected the suspects with the rapes. However, medical examinations were not carried out in all cases where female students had been raped.

On 30 May 2014 during pre-research, the researcher consulted with the Public Prosecutor, Mr N Mutangwa, who is attached to the Sibasa Regional Court in Thohoyandou to confirm the existence of the problem. As a result of both the preliminary literature review and the primary research, this study focuses on criminal rape cases that were prosecuted between 2009 and 2011 at Thohoyandou Magistrate's and High Courts to find out whether semen had been analysed and used as evidence during the prosecution of rape cases, and how this lack of semen analysis impacted on the outcome of the rape trial.

In *S v Nephawe*, semen was not used as evidence to prove the rape allegation. Semen was not analysed, as a DNA test was not conducted, due to the dereliction of duties by officials. Moreover, semen was also not analysed because the victim and the suspect agreed that there had been sexual intercourse. In the case in question, the accused was known to the family, and he pretended to be a priest who could exorcize evil spirits from two minor female victims. As such, he did not deny sexual penetration; he only disputed the fact that he had not been given consent. Accordingly, the accused was welcomed in the family of the two minor victims, as he was there to pray for the victims' father who was terminally ill. The accused also told the mother of the victims that there were evil spirits in the family and as such she must allow him to remove those evil spirits by praying for her. So he went inside the room with the victims and ordered them to close their eyes and undress. He said he was removing evil spirits by sexually penetrating them.

The victims divulged this information and the accused was eventually arrested and sentenced to two life sentences because the two victims were under the age of 16 years when the offences were committed. In simple terms, the accused committed the offences by means of fraud. One of the victims had stomach pains, and the accused misused the trust and made use of the opportunity to rape her under the guise of praying for her. The purpose of DNA is to prove penetration; and in this case there is no dispute over penetration, but only about consent. Consent can be decided upon by the magistrate after hearing testimony (*viva voce* evidence) from the witnesses themselves.

The problem that prompted this research investigation is that prosecutors seem to underestimate the use of semen as physical evidence in rape cases. Prosecutors mostly build cases on the basis of verbal evidence from victims with regard to sexual penetration. There have been several cases of rape where suspects were convicted because the medical practitioners had endorsed that penetration had in fact occurred but semen samples were not used to link the suspects, and that led to more rape suspects being falsely convicted of rape. In view of this problem, this study provides the framework that can be used as an aid to reduce the total number of innocent people found guilty on false rape charges, and increase the total number of suspected rapists convicted by means of the use of seminal evidence detection. This research is a call to the prosecution to use semen as evidence in all rape cases.

Mr N Mutangwa (the control prosecutor at Sibasa regional court, responsible for managing all prosecutors and the prosecution of all sexual offences in the district) highlighted that during 2009 and 2011, approximately 180 rape cases had been prosecuted at Sibasa regional court and only 45 involved semen being used as evidence to connect the suspect with the crime and all other cases the state rely on other available evidence to prove the case. It seems as if the state spends more money when cases go on appeal, rather than prove the importance of DNA through the use of semen. The inability by the genetics specialist to analyse semen as evidence is causing a backlog in court cases because there are unnecessary appeals that could have been avoided if semen had been analysed and used as evidence. Invariably this is also a waste of state resources and financial assets because a case that was supposed to be proved during the first trial is returned to court to prove semen as evidence. This research project may assist the detectives and prosecutors to prove

rape cases by means of the use of semen as evidence during the prosecution of such cases in order to link the suspect to the crime.

1.3 AIM AND OBJECTIVES

Following from the background information provided above, a discussion of the aim of the research and objectives of the study follows below.

1.3.1 Aim of the Research

A critical aspect of this enquiry is the aim of the research. Mouton (2009:103) defines the aim of the research as a scholarly endeavour to unearth hidden knowledge regarding the subject under investigation. Simply stated, the aim of the research is to ascertain the facts and contribute new information on an aspect of the research topic under investigation. Against that background, the aim of this study is to analyse the importance of semen in the investigation of rape cases.

1.3.2 Objectives of the Research

The objectives of this study are:

- To determine the importance of semen as physical evidence in the investigation of rape cases; and
- To analyse the challenges faced by the prosecutors when using semen as physical evidence during prosecution of rape cases in the Sibasa/ Thohoyandou area.

1.3.3 Purpose of the Research

According to Babbie and Benaquisto (2010:80), social research serves many purposes. Three of the most common and useful purposes are explanation, description and exploration. The purposes of this research are the following:

- Exploration of the importance of semen as physical evidence in the investigation of rape cases;

- Exploration and analysis of the challenges faced by the prosecutors and investigating officers when analysing semen as evidence in the investigation of rape cases; and
- To serve as motivation to the investigators and prosecutors who do not include semen analysis as evidence during the investigation and prosecution of rape cases.

1.4 RESEARCH QUESTIONS

According to Denscombe (2002:31), the research questions asked in a research study specify exactly what the researcher wants to investigate. In order to address the problem under investigation, the following questions were developed:

- What is the importance of semen in the investigation of rape cases?
- What are the challenges faced by the court when using semen as evidence during the prosecution of rape cases?

1.5 KEY THEORETICAL CONCEPTS

According to Welman and Kruger (2001:23), the key concepts that are repeatedly used in the research study must be clearly defined. This is in line with the view of Mouton (2009:66), who confirms that key concepts refer to those keywords that the researcher frequently uses in the research project.

1.5.1 Semen

Stuart and John (2009:285) define semen as a “semi-fluid mixture of cells, amino acids, sugars, salts, ion, and other organic and inorganic materials elaborated as [a] heterogeneous gelatinous mass contributed by the seminal vesicles, the prostate gland, and [C]owper’s glands”.

1.5.2 Prosecution

Prosecution is an integral component of the criminal justice system. Indeed, Hornby (2005:1167) defines prosecution as the process in the court system whereby evidence is used in order to prove guilt or lack of it. The importance of evidence in court explains the reason why this study explores semen as evidence.

1.5.3 Physical Evidence

The conception and constitution of evidence vary according to the judicial system being used. Nevertheless, Fish, Miller and Michael (2011:434) argue that evidence is anything that can prove that a crime has been committed. Therefore, notwithstanding the variety of criminal justice systems, the common denominator in the definition of evidence is its relevance in the criminal case being tried in the court of law.

1.5.4 Rape

Snyman (2014:355) views rape as the unlawful and intentional act of having sexual intercourse with someone without consent, whereas Osterburg and Ward (2014:466) state that “rape includes any gender victim or perpetrator, and includes instances in which the victim is incapable of giving consent because of temporary or permanent mental or physical incapacity, including due to influence of drugs or alcohol or because of age”. The Sexual Offences Act, 2007, considers sexual intercourse by an adult with a minor as statutory rape.

1.5.5 Evidence

Evidence refers to anything that tends to prove or disprove a fact in contention, Ross & Gardner (2012:07).

1.5.6 Forensic Investigation

Forensic investigation describes the process of searching, collection, collation, and analysis of evidence pertaining to a possible crime or transgression. Van Rooyen (2008) offers a rather peculiar definition, noting that forensic investigation is mostly concerned with investigation of information technology crimes, including computer-based crimes, corporate corruption, and industrial espionage. However, the literature review carried out for this study shows additional facets of forensic investigation to include scientific evidence such as DNA samples. Notwithstanding the genre of evidence whether scientific, IT based or common evidence forensic investigation assists in determining whether a suspected perpetrator is a criminal or not.

1.5.7 Locard Principle

Houck and Siegel (2011:54) state that when two things come into contact, information is exchanged, which seems pretty simple, and yet it is the central guiding theory of forensic science. The theory suggests that this exchange of information occurs, even if the results are not identified or too small to have been found. The results of such a transfer would be proxy data: not the transfer itself, but the leftovers of that transaction. Furthermore, the Locard Principle is based on contact theory, which states that when two objects come into contact with each other, the one will leave a trace on the other. According to the Locard Principles, the mutual transfer of traces takes place in two ways. The criminal leaves traces at the scene or takes traces from the scene with him or her. These two ways of transferring of traces are referred to as 'trace donors' and 'trace recipients' (Lochner & Zinn, 2015:12).

1.6 RESEARCH DESIGN

According to Welman, Kruger and Mitchel (2005:52), a research design is a plan that the researcher uses to gather information from the participants and how the plan has been executed. Mouton (2009:175) states that "research design is an exposition or plan of how the researcher plans to execute the research problem that has been formulated".

The qualitative method was employed in this study because the researcher is interested in understanding human behaviour. According to De Vos, Strydom, Fouche and Delport (2012:312), the qualitative research method differs from the quantitative method in that when using the qualitative method, the researcher does not follow the step-by-step plan or fixed recipe. In the qualitative method, the researcher's choice and action determine the strategy.

The researcher carried out this enquiry on the basis of the empirical research design. The empirical research approach is founded on deductive traditions, meaning that it constructs knowledge on the basis of evidence, in particular primary data. Indeed, the researcher thus conducted the study by, in part, interviewing prosecutors and SAPS detectives based in Limpopo Province, South Africa. It is worth pointing out that the officers that were interviewed for this study reflected on their experience, thus making the conclusions of this study reliable and objective. Regarding the role of experience, Keith (2014:377) argues that empirical research design is when the study draws directly from lived experiences and its contribution to the creation of new knowledge becomes more valuable. This is proof of the importance of conducting interviews in order for the study to pass the scholarly muster (Denscombe, 2002:27).

According to Mouton (2009:190), empirical statements are those that are researched and proved to be true about the problem. There are two types of empirical statements, namely the descriptive and the explanatory empirical statements. The researcher made use of the interpretive research design. Interpretivism concentrates on the meanings people bring to situations and behaviour, and that they use to understand their world (Keith, 2014:18).

1.7 RESEARCH APPROACH

In order for the researcher to gain new knowledge about the problem, he/she must use a practical approach in order to arrive at new findings about the problem. Since the problem under investigation is real, the researcher used the qualitative approach in conducting the research (Leedy & Ormrod, 2005:94). Therefore, since the researcher wants to uncover why semen is not analysed as evidence, especially in cases where a condom was not used, the researcher explored the occurrences from

the participants' points of view. This is achieved in major part through the use of the primary data collection technique, namely interviews.

1.8 TARGET POPULATION

"A population is the object of the study and consists of individuals, groups, organisations, human products and events or the conditions to which they are exposed" (Welman, et al., 2005:52). Similarly, Babbie and Mouton (2012:100) defined population as that group of people from whom we want to draw conclusions about the research problem. The population for this study project are prosecutors and detectives, with special attention paid to an analysis of the way they engage with semen as evidence given in court regarding cases involving rape.

The population in which a researcher wishes to conduct his research is a target population (Welman & Kruger, 1999:122). Again, the target population for this research are prosecutors and SAPS detectives in and around Thohoyandou, a town situated in Limpopo Province. The town/area has three courts. The researcher elected to conduct the research at Thohoyandou, due to his being a resident in the Thohoyandou area, and was previously employed by the University of Venda. The major upshot of this decision was that it reduced the cost of the study, and the research population was viable.

1.9 SAMPLING

According to Babbie and Mouton (2012:164), sampling is the process of drawing a representation from the population. If the researcher finds that the data collected from the rest of the population is typical, the researcher can conclude that the answers he received from other groups represent the true findings of the research. Similarly, Goddard (2006:34) states that the sample is representative of the population group where the researcher intends to conduct his research project. The researcher purposely selected a sample of 11 prosecutors, which is sample A; and 5 detectives, which is sample B. The researcher used the purposive sampling method, as he had selected participants who were experienced in the prosecution of rape cases. He

interviewed people with the relevant experience and knowledge of the topic. This approach is consistent with purposive sampling, for the researcher selected a specific group of people or population with the relevant knowledge and experience in order to obtain information that is applicable (Leedy & Ormrod, 2005:206).

1.10 DATA COLLECTION

Data collection is an indispensable stage of the scholarly enquiry. Therefore, data collection refers to the identification and gathering of data relevant to the research objectives (Mouton, 2009:67). Simply stated, data collection is the gathering of supporting information, mostly from primary sources. This study used the qualitative research technique, hence the primary data was obtained from sources by using interviews. The application of qualitative data in respect of collection is consistent with the major body of literature, especially the adoption of triangulation to ensure validity of the study (Babbie & Mouton, 2012:104). A discussion on how interviews were conducted for this study follows below.

1.10.1 Interviews

The researcher conducted face-to-face interviews with the participants. Interviews helped the researcher to engage with participants whose personal experiences enabled the researcher to gather valid and reliable information that is relevant to the research objectives (Leedy & Ormrod, 2005:5).

Kobus (2010:87) defines interview as a communication between two people, where the interviewer collects information, data, beliefs and ideas about a specific topic under investigation from the interviewees. Interviews help the interviewer to collect valuable and rich information from the participants, especially if the interviews are conducted correctly. The semi-structured interview format was used in the engagements with participants in this study. This was argued by Leedy and Ormrod (2001:5), who assert that semi-structured interviews are advantageous in helping the researcher collect valid and reliable information. Similarly, Flick (2009:149), supports the use of semi-structured interviewing since it is part of qualitative research traditions, and it allows

both discipline and freedom for the researcher to probe freely (during the interview) without the constraint of an inflexible schedule of research questions. Similar interview questions were asked to all participants, but with some degree of variability. Furthermore, the researcher compiled an interview schedule with a list of questions in order to ensure a degree of structure to the research enquiry (Ranjit, 2005:126). The said interview questions assisted the researcher to focus the enquiry on answering the research problem, the aim and the research questions.

1.10.2 Literature Review

Welman, Kruger and Mitchel (2001: 33) stated that, in addition to libraries, there are other literature sources available to the researchers, such as research already done on the topic, tracing recorded data on the same topic, archives and court records. (De Vos, Strydom, Fouche & Delport, 2002:96) also mention that various sources should be consulted for information.

The researcher used two types of sources, namely primary sources and secondary sources. Primary sources are people with relevant knowledge about the topic (hence the discussion on interviews above). Primary sources include, among other things, media reports, Constitution of the Republic of South Africa, Act 108 of 1996, people that are familiar with the issues being studied, the Government Gazette and newspapers. Secondary sources are items of literature written about the research topic, and include dissertations and theses, and journals articles. The researcher gathered secondary literature from libraries, and ensured that the said literature was relevant to the research problem under investigation. Upon finding the relevant literature, the works of various authors were compared to determine whether there has been any researcher who has already researched the topic, and to compare what the various researchers' findings are (Nicholas, 2011:70-71). The researcher made extensive use of court cases to augment or disprove certain matters.

1.11 DATA ANALYSIS

De Vos et al. (2002:139) state that data analysis is the method of interrogating data and bringing the information collected together in a manner that creates new knowledge. According to Lee and Ladd (2001:160), data analysis can be done by means of various methods. The researcher used content analysis. This method is appropriate mostly for qualitative data, such as the data collected by means of interviews, case dockets and, to some extent, secondary literature. The researcher transcribed data collected during interviews (recorded on a digital recorder), and even used his own field notes. The items of information that had been collected by means of interviews and literature were compared to each other in order to produce reliable findings and recommendations. In this regard, the researcher also used the spiral data analysis method to analyse the data collected (Leedy & Ormrod, 2010:153). When using the spiral data analysis approach, the researcher examined the data several times, taking the following steps:

- Organising data;
- Reading transcribed data repeatedly in order to obtain a thorough understanding of what it contains as a whole;
- Categorizing data into groups and classifying them in accordance with their meanings (coding); and (finally)
- Summarizing the data, drawing conclusions.

1.12 METHOD USED TO ENSURE VALIDITY

According to De Vos et al. (2002:166), validity is divided into two parts, namely instrumental validity and conceptual validity. According to Babbie and Mouton (2012:122), validity is the extent to which an empirical measure adequately reveals the same meaning as the idea under investigation. Validity, therefore, is a concept that promotes the objectivity of the research findings.

The researcher used multiple tactics to achieve validity. For example, he used the language that all respondents could write or speak in order to ensure that the research

findings were valid and there was no complexity. Instead, the study pursued the foundations of validity, namely truthfulness and objectivity.

Moreover, the researcher ensured that the findings were valid by, among other things, conducting interviews with the participants to obtain information. Interviews were conducted with people that have lengthy working experience, on average more than ten years in the criminal justice fraternity. Noteworthy is that the researcher ensured validity by gathering information and data from the case dockets. This is the documentary approach, a component of qualitative research, and it assists with triangulation, and further strengthening the truthfulness and validity of the research outcomes. Truthfulness was enhanced by the fact that the researcher recorded the interviews, and in addition transcribed the material. This proved extremely useful during the analysis phase where data was coded and themes identified consistent with the thematic analysis perspective, therefore the researcher used various tactics to ensure that he presented the findings of the study in full (Welman et al., 2005). The researcher has retained the interview recordings/transcriptions to prove the validity of the research, and the transcribed material is stored in a safe place for reference.

1.12.1 Credibility

Qualitative research sometimes lends itself to arguments and counter-arguments by theorists, i.e. academic debate. Against this background, the researcher endeavoured to ensure that this study is credible, thus forestalling any possible credibility disputes. Indeed, Marilyn (2014:386) advises that researchers allow outcomes to be assessed by participants, since they are the appropriate people with the required knowledge that can objectively judge the credibility of research results. As a result, this study paid particular attention to credibility, and this was ensured by means of the process of choosing research participants. This study attained credibility through several initiatives, namely by engaging well-informed professional people, prolonged interaction with interviewees, and continuous observation in the field by means of triangulation, and by making use of formalised, face-to-face interviews with the participants (De Vos et al., 2012:419). The research project has thus achieved the

credibility objectives, namely transparency and enabling access to its processes by participants.

1.12.2 Transferability

According to Marilyn (2014:387), transferability is the extent to which the results can be transferred to other settings.

1.13 METHOD TO ENSURE RELIABILITY

Reliability is when the same instruments of enquiry, including data if used repeatedly produce same results (Babbie, 2010:150). Welman, Kruger and Mitchel (2005:145) state that reliability is when the findings of the research will produce the same results if researched differently.

The researcher ensured reliability of this study by using structured interviews, a schedule of questions, and tapping into journal articles. Semi-structured interviews are an indisputable instrument of attaining reliability for the study. According to Ranjit (2005:156), if the research tool (such as semi-structured interviews) is consistent and stable, and hence predictable and accurate, it is said to be reliable. The greater the degree of consistency and stability in an instrument, the greater is its reliability.

Reliability has two strands:

- How reliable is an instruments?
- How unreliable is it?

The first question centres on the capability of an instrument to produce reliable measurements (Leedy & Ormrod, 2010). This means that when collecting the same information repeatedly, using the same instrument, and getting the same results under similar conditions, an instrument is considered to be reliable. The second question centres on the point of contradiction in the measurements made by an instrument (Cresswell, 2009). This means that when collecting the same information repeatedly, using the same instrument, and obtaining different results under similar conditions, an instrument is considered to be unreliable.

1.13.1 Dependability

According to Marilyn (2014:387), dependability emphasizes the need for the researcher to account for the ever-changing context within which research occurs. The researcher attained dependability by describing the changes that occurred in the research settings and how these changes affected the way the researcher approached the study.

1.13.2 Conformability

According to Marilyn (2014:387), conformability refers to the degree to which results could be confirmed or corroborated by others. Ranjit (2005:237) concurs with the preceding view, but adds that conformability must preoccupy the researcher so that his work exhibits high levels of consistency. In respect of conformability, the researcher noted that most of the findings from the interviews were consistent with the literature review. In this regard, the purposeful application of triangulation assisted in attaining conformability.

1.14 ETHICAL CONSIDERATIONS

According to Leedy and Ormrod (2014:273), the following ethical considerations must be taken into consideration when conducting research these are:

- Protection from harm,
- Informed consent, -Right to privacy,
- Confidentiality,
- Voluntary participation
- Trustworthiness; and they are detailed below.

1.14.1 Protection from Harm

The research study did not harm the participants, irrespective of whether they volunteered to provide information to the researcher. According to De Vos et al. (2002:62), the researcher ensured that the participants were protected from risk or harm. The researcher did not recklessly reveal the information provided to him by the participants, as such information might embarrass the participant or harm his image (Babbie, 2010:65). The student researcher used cover names in order to conceal the identities of interviewees. According to Welman, Kruger and Mitchel (2005:201), the researcher must give the participants the assurance that they will be protected from any form of harm. The researcher first obtained permission from the participants and the National Prosecuting Authority (NPA).

1.14.2 Informed Consent

Informed consent by the participant must be made in writing and he must have given voluntary consent to the research project (Cresswell, 2009). Before the consent ~~is~~ was given by the participants, the researcher informed them of the objectives of the study and also the duration of the project. The researcher outlined the advantages and disadvantages, and the danger that the participants might be exposed to as well as the credibility of the researcher (De Vos et al., 2012:117). The researcher received permission from the participants after informing the NPA and South African Police Services (SAPS) about the purpose of the interview (Welman et al., 2005:201). In this respect, the student applied University of South Africa (UNISA) research protocols in respect of informed consent.

1.14.3 Right to Privacy

Privacy means that the researcher would keep secret the identity and information shared to him by the participants (De Vos et al., 2012). The researcher was guided by the participants as to whom, where and when that information might be revealed, and the researcher acted with sensitivity in safeguarding the information provided by the participants. The researcher ensured that the information provided was never leaked

to any person (De Vos et al., 2012:119). The participants' identities were kept secret (Welman, et al., 2005:201).

1.14.4 Confidentiality

The researcher must treat the information provided by the participants as confidential and must not disclose the information to any person without the participants' approval (Goddard, 2006:49). This study ensured compliance with the confidentiality code, and cover names were used to ensure privacy and confidentiality.

1.14.5 Voluntary Participation

Participation by the participants in every research project must be voluntary and any participation where participants were forced to participate is against the norms of conducting research (De Vos et al., 2012:119). All interviewees participated in this study without being coerced.

1.14.6 Trustworthiness/Authenticity

According to Bailey (2007:180), trustworthiness entails conducting and presenting the research in such a way that the reader will believe or trust the results and be convinced that the researcher is worthy of his or her attention. Trustworthiness does not mean that the reader necessarily has to agree with the researcher; rather, it requires that the reader should be able to see how the researcher arrived at the conclusion he or she made. Without extensive field notes and other types of records to draw on, even the most experienced researcher finds trustworthiness difficult to establish. To achieve it, this study communicated in detail the procedure used and the decisions made throughout the research process.

1.15 CHAPTER LAYOUT

The chapters for this study are as follows:

CHAPTER 1: General orientation

In this chapter, the researcher outlines the research questions, problem statement and the aims and objectives of the research. The researcher also explains the research methods and research design used to collect data for the study. The researcher also explains the ethical considerations.

CHAPTER 2: The importance of semen in the investigation of rape cases.

In this chapter, the researcher outlines the importance of semen as physical evidence during the prosecution of rape cases. The researcher also explains how semen can be used to connect the suspect with the crime before prosecution. In this chapter, the researcher explains why it is important to use semen as evidence together with all the other available evidence to prove rape.

CHAPTER 3: The challenges faced by prosecutors when using semen as physical evidence during prosecution of rape cases.

In this chapter, the researcher explains the challenges faced by the prosecutors when they present semen as evidence in court. The researcher outlines what prevents the evidence from being admissible in court, or why the courts are reluctant to use such evidence.

CHAPTER 4: Findings and recommendations

In this chapter, all the findings and recommendations based on the literature and interviews are discussed.

CHAPTER 2: THE IMPORTANCE OF SEMEN IN INVESTIGATION OF RAPE CASES

2.1 INTRODUCTION

This chapter discusses the role and importance of semen in the investigation of rape cases. Indeed, the success of a crime investigation depends to a great extent on the methods used during the investigation. Criminals are always studying the methods used by the investigators in order to escape arrest. As a result it is important that detectives must also devise new methods and procedures for investigation.

Rape cases are part of a group of cases that happen in the absence of eyewitnesses, except for the victim who must provide information about what exactly happened, with the presence of semen being able to corroborate the victim's evidence. In this chapter, the meaning of rape, semen and criminal investigation are discussed at length. Similarly, locating, collecting and preserving semen as evidence are also discussed.

2.2 MEANING OF RAPE

According to Joubert (2010:113), any person who unlawfully and intentionally commits an act of sexual penetration with a victim without the latter's consent is guilty of rape (Criminal Law Amendment Act No. 32, 2007). The same author (Joubert, 2010:113) further explains rape as forced sexual intercourse accompanied by psychological and physical coercion, as well as physical force. Forced sexual intercourse includes oral, vaginal and anal penetrations. This classification also includes occurrences where penetration is effected in conjunction with the use of foreign objects such as a bottle. In contemporary times, the definition of rape does not pertain exclusively to violent heterosexual relations, as rape can occur across both genders, thus producing both male and female victims (Birzer & Roberson, 2012:258). The table below summarises different types of rapes and the method of sexual penetration.

Table 1: Forms of Penetration

	Vaginal penetration	Oral penetration	Anal penetration
Method	Penetration of vagina by a penis or any object.	Penetration of a mouth by a penis or any object.	Penetration of anus by penis or any object.
Victims	Females	Males and females	Males and females
Perpetrators	Males and females	Males and females	Males and females

The literature gives several basic qualifiers in defining ‘rape’. Accordingly, rape is referred to as an unlawful sexual action, usually carried out by force or under threat of injury, against the will of usually a female victim or a person who is under a certain age, or a person incapable of valid consent (Osterburg & Ward, 2014:473). Snyman (2008:355) maintains that any person who unlawfully and intentionally commits an act of sexual penetration without consent, commits rape. Similarly, Orthaman and Hess (2013:331) focus on describing rape as sexual intercourse with a person against his or her will. On the other hand, Gilbert (2010:292) defines rape as an act of sexual intercourse against another by force or against one’s will. The inference is that lack of consent in intercourse is the major indicator of rape.

Similarly, Held, Myka, McLaughlin and Juliana (2014:155) state that “an individual is guilty of rape if he or she knowingly causes another person to engage in [a] sexual act (1) by using force against that other person, or (2) by threatening or placing that other person in fear that the person will be subject to death, seriously [serious] body injury, or kidnapping, or attempts to do so” (2014:155). An individual is also guilty of the rape offence if he or she “knowingly (1) renders another person unconscious and thereby engages in a sexual act with that other person, or (2) administers, without the knowledge or permission of that person, a drug, intoxicant, or other similar substances and thereby substantially impairs the ability of that other person, or attempts to do so.” Regarding the latter, rape is described in terms of precluding a victim from taking an independent position regarding the sexual act, due to the use of harmful substances.

Two sets of respondents, consisting of five (5) detectives and five (5) prosecutors, were asked what they understand by the word “rape”, and they responded as follows:

- Two detectives described rape as a penetration of any opening, namely the anus, vagina or mouth, of the other person without the consent of the victim.
- One detective described rape as when one person unlawfully and intentionally has sexual intercourse with another.
- Four interviewees (one detective and three prosecutors) from both sets of respondents described rape as an unlawful and intentional act of having sexual intercourse with a person without consent.
- One detective described rape as when any person has sexual intercourse with any person, whether a male or female, without consent.
- One prosecutor described rape as an unlawful act of sexual penetration committed by A against B.
- One prosecutor described rape as an act in which an offender forces herself or himself on another person and there is penetration, without the consent of the victim. Lastly, he noted that the insertion of any instrument might constitute a rape when it penetrates the private parts of the victim.

All answers given by the respondents are consistent with the definitions put forth by Joubert (2010:113), namely that any person who unlawfully and intentionally commits an act of sexual penetration with a complainant, without the latter’s consent, is guilty of rape. Notwithstanding that, an analysis of rape requires a certain amount of knowledge of all the aspects of rape, and this is detailed below in the discussion of the categories of rape.

2.3 CATEGORIES OF RAPE

Rape is divided into four types, namely statutory rape, gang rape, date rape and marital rape.

2.3.1 Statutory Rape

Birzer and Roberson (2012:258) define statutory rape as 'when a person, male or female, engages in sexual intercourse with any person under the age of consent (usually 16) and not his or her spouse'. According to Joubert (2010:120), statutory rape is defined as having sexual intercourse with a child over the age 12 years but under the age of 16. Chambliss and Hass (2012:406) referred to statutory rape as sexual intercourse with a minor under the age of being able to give valid consent. Thus, statutory rape is sexual intercourse between an under-age individual and an adult, even in instances where there is no coercion. An under-age person is considered incapable of giving valid consent.

Dabney (2013:94) asserts that statutory rape encompasses all forms of sexual penetration committed against an individual under the specified age of consent. According to Siegel (2013:563), statutory rape is sexual relations between an under-age individual and an adult. Furthermore, statutory rape is referred to as sexual relations with a victim under the age of giving consent (Hagan, 2011:217). According to the Criminal Law Amendment Act, 32 of 2007: "a person (A) who commits sexual penetration with a child (B) is, despite the consent of B, considered to be guilty of the offence of having committed an act of sexual penetration with a child."

Consequently, two sets of respondents were asked what they understood by the term "statutory rape" and the following answers were given:

- Seven interviewees (three detectives and four prosecutors) from both sets of respondents submitted that statutory rape is when a person has sexual intercourse with a minor under the age of 16 years who cannot give consent.
- One detective said statutory rape is when a minor person gives consent to have sexual intercourse with an adult, and only the guardian can report statutory rape. The detective further indicated that when a minor gives consent to another minor to have sexual intercourse, that it is not regarded as statutory rape.
- One detective said statutory rape is having sexual intercourse with a person under the age of 18 years because such a person cannot give consent.
- One prosecutor described statutory rape as an offence which is governed by section 15 of the Sexual Offences Act 32 of 2007, whereby a minor between

the ages of 12 and above but under the age of 16 gives consent to have sexual intercourse.

The responses by eight respondents from both sets are consistent with the literature review of Birzer and Roberson (2012:258) who define statutory rape as 'when a person, male or female, engages in sexual intercourse with any person under the age of consent (usually 16) - and not his or her spouse'. This was also supported by Siegel (2013:563), who refers to statutory rape as sexual relations between an under-age individual and an adult, though not coerced, as an under-age partner is considered incapable of giving valid consent. The responses by the two detectives in bullets two and three are not supported by any literature. The detective in bullet three is confusing statutory rape with abduction. The student researcher is therefore of the idea that there is still much to be done to enable the detectives to understand the precise definition of statutory rape.

Furthermore, detectives were asked about the importance of consent in statutory rape. The same question was also put to the prosecutors and the answers from the two groups were as follows:

- One detective did not respond to the question.
- Five persons (three detectives and two prosecutors) from both sets of respondents indicated that consent is not important in statutory rape as it is not required.
- One detective said there is no importance of consent as the minor cannot give consent to an adult but a minor of 12 years and above can give consent to another minor of the same age.
- Three prosecutors asserted that the importance of consent in statutory rape is that if the minor gave consent, the perpetrator cannot be sentenced to life imprisonment.

The researcher noted that the responses by the five respondents, namely that consent is not required in statutory rape, is consistent with the literature (although there are three respondents in bullet three who indicated that it is important to the suspect during sentencing). One respondent did not respond to the question and this suggests that there is a need for more workshops to orient detectives about the categories of rape, as this lack of knowledge could impact negatively on their investigations.

2.3.2 Gang Rape

According to (<http://rekordeast.co.za/56397/young-pta-pupil-allegedly-raped>) the Gauteng Department of Basic Education reported that four primary school girls from Kutumela Molefi primary schools in Lethabong informal settlement were gang-raped in June 2017. eNCA (20 August 2015) reported that two seven year old school girls had allegedly been raped by six boys at a school in Vosloorus, and had received counselling, while the perpetrators had been suspended. Attacks on a number of girls took place during school hours at Rustenburg Primary School. Although the crimes were committed by pupils under the age of 16 years, who do not have criminal capacity, they must be punished. The-girls' right to dignity had been infringed in terms of section 10 of the Constitution of the Republic of South Africa.

Gang rape is defined as forcible sexual intercourse involving multiple rapists (Siegel, 2013:560). Gang rape is further explained as the rape of a victim by more than one perpetrator (Chambliss & Hass, 2012:268). Hagan (2011:228) describes a typical gang-rape scene: a defenceless young woman, that is, one who is seeking acceptance or who is high on drugs or alcohol, is taken to a room. She may or may not agree to have sex with one man. She then passes out, or is too weak or scared to protest and a number of men have sex with her. Sometimes the young woman's drinks are spiked without her knowledge and when she is approached by several men in a locked room, she hardly reacts, due to disorientation and fear. Whether too weak to protest, frightened, or unconscious, as has been the case in quite a number of instances, any number from two or more men have sex with her. The inference is that gang rape usually occurs when a female person is raped by more than one man without her consent, and it usually occurs when the female is not in her normal state of mind, although the victim being in an altered state of mind is by no means a prerequisite for gang rape. This includes gang rapes where the victim is a man.

2.3.3 Date Rape or Partner Rape

Date rape is sexual intercourse forced on a person by an associate acting as an escort during some type of social meeting (Chambliss & Hass, 2012:267). In addition, it is referred to as forcible sex during a courting relationship (Siegel, 2013:559).

Schmallegger (2011:186) mentions that the majority of rapes occur when the victim and the offender have some prior relationship, though not necessarily close, or of matrimonial nature. Date rape is quite common, and among adults, acquaintance rape usually occurs within the context of a dating relationship. According to Hagan (2011:227), many rapes take place within recognised dating relationships, and the vast majority are never reported. Victims often fear the publicity, notoriety, and family reaction that pressing charges would cause. The fundamental trait of this type of rape is that it occurs amongst people who know each other and have some form of relationship or a previous intimate relationship.

2.3.4 Spousal or Marital Rape

Legal advances in recent years have led to important changes in the scope of rape laws. A husband may be held liable for rape if he forces sexual intercourse on his sleeping wife (Kauzlarich & Barlow, 2009:79). Siegel (2013:345) indicates that many women are raped each year by their husbands as part of an overall pattern of spousal abuse, and the women deserve the protection of the law. Siegel (2013:561) defines marital rape as forcible sex between people who are legally married to each other. Similarly, Chambliss and Hass (2012:268) state that marital rape is forced sexual intercourse in a marital relationship. Furthermore, Snyman (2014:355) mentions that section 56 (1) of the Criminal Law Amendment Act provides that whenever an accused person is charged with rape, “it is not a valid defence for that accused person to contend that a marital or other relationship exists or existed between him or her and the complainant” (Snyman (2014:355)). It is, therefore, possible for a husband to rape his own wife.

Nevertheless, Kauzlarich and Barlow (2009) maintain that marital rape can be committed only when a husband has sexual intercourse with his sleeping wife. Moreover, the victim could report rape against her husband even if sexual intercourse happened while she was not asleep, as long as there was no consent, or if force was used against her. A discussion regarding semen and its role as evidence in court follows below.

2.4 THE MEANING OF SEMEN

Semen is a living, male reproductive biological organism (Gilbert, 2010:314). Jackson and Jackson (2011:153) define semen in biological terms, namely that semen is a fluid produced by the male reproductive glands and accessory sex glands, such as the prostate and seminal vesicles.

Houck and Siegel (2011:239) similarly define semen on biological grounds, describing it as a complex, gelatinous mixture of cells, amino acids, sugar, salts, ion, and other materials produced by post-pubescent males, and which is ejaculated following sexual stimulation. The inference is that semen is a male reproductive cell.

Two sets of respondents consisting of five detectives and five prosecutors were asked about what they understand by the word “semen” and the following responses were recorded:

- One detective was unable to respond to the question.
- One detective indicated that it is a fluid that is released by both men and women before or during sexual intercourse.
- One detective said semen is a fluid that is produced from the penis of a male person either during or before sexual intercourse.
- One detective said semen is a fluid that is found when a doctor examines the rape victim.
- Two respondents (One detective and one prosecutor) described semen as a male reproductive fluid.
- Three prosecutors said semen is a male bodily fluid that carries sperm and is excreted by the male reproductive organ.
- One prosecutor said semen is any human fluid comes from the body of a human being that will then be used to determine whether rape has taken place Semen also assists the DNA analysts to investigate whose semen it might be.

The responses submitted by eight respondents shows that they understand that semen is a male bodily fluid that is excreted via the male reproductive organ, although the definitions of the respondents are not in line with the definition provided in the literature, as some of the participants were unable to explain or attempt to give a description of the colour and how it is produced, as described by Jackson and Jackson (2011:153). The authors further explained semen as a fluid produced by the male

reproductive and accessory sex gland, such as the prostate gland and seminal vesicles. The authors further referred to sperm as a greyish-white fluid produced in the male reproductive organs, and that it is ejaculated during orgasm. The response of the last respondent shows that he/she is not sure whether semen is produced by a male or female and that uncertainty, according to the researcher, is a very serious shortcoming that has to be addressed by means of training.

2.5 THE IMPORTANCE OF SEMEN IN INVESTIGATION OF RAPE CASES

In modern times, semen has emerged as a crucial and inalienable aspect when used as evidence in prosecution. Taylor (2014:744, 7445) explains that this is due to scientific breakthroughs associated with DNA sequencing. DNA evidence has thus become an irrefutable element because of these capabilities, so much so that DNA is regularly used as evidence in sexual crimes. In crime investigation, police and law enforcement agencies use 'rape kits' to gather medical forensic evidence from crime victims, who are mostly females. These rape kits have proved useful to such an extent that courts have convicted criminals solely on the basis of DNA evidence. Taylor (2014:748/9) reasons that the acceptance of DNA evidence is high, due to the scientific accuracy of the DNA-matching technology. It has made identifying perpetrators possible, even in circumstances where no other clues are available. Indeed, in some instances, DNA evidence is corroborated by other pieces of evidence, be it confessions or eyewitness testimonies.

To the question: Explain one significant aspect of semen in the investigation of rape cases. The following responses from both groups of respondents (sample A and B) were recorded:

- One detective did not respond to the question.
- Three detectives indicated that the significance of semen is that it can link the suspect to the crime scene.
- One detective said the importance of semen in the investigation of rape cases is for the purpose of investigation.

- Five prosecutors said that the important role that semen plays in the investigation of rape cases is that it links the accused to the crime by means of DNA analysis.

The responses by nine respondents (with the exception of one detective who did not respond to the question) are similar, in that they all mention that semen is important for the purpose of identifying or linking the suspect with the crime of rape. Although the researcher agreed with the responses by the nine respondents, as supported by Taylor (2014: 48/9), that DNA testing is useful in identifying the suspect, the researcher still has a problem with the respondents who just mentioned that semen could link the suspect to the scene of rape but they were unable to indicate that was possible only if a DNA analysis was indeed carried out for comparison purposes.

2.6 FEMALE PERSONS AS RAPISTS

According to Snyman (2014:349), if a female places the penis of a male person into her vagina, anus or mouth, or generally handles their respective bodies or bodily movements in such a way that her actions result in the man penetrating her vagina, anus or mouth with his penis it is regarded as rape if no consent was granted. It should be remembered that the national legislature considered the phenomenon of a female raping a male, hence the widening of the rape definition, no matter how difficult it may be to contemplate. The wording of paragraph (a) of the definition of “sexual penetration” in section 1(1) of the Criminal Law (Sexual Offences and Related Matters) Amendment Act, No 21 of 2007 is broad enough to include such conduct. The female is then considered the rapist and the male the victim. The easiest way of contemplating this type of conduct is to imagine the female as stronger and the male being weak.

The researcher agrees with Snyman (2014:349) that not only males can commit rape, but females can also commit rape through their conduct, or when a female threatens a man. In those situations, even though a man’s penis penetrated the woman’s vagina, the woman is considered to be the one who committed the rape since it was the woman who forced the man to have intercourse with her without the man’s consent.

2.7 MEANING OF CRIMINAL INVESTIGATION

Criminal investigation is one of the main responsibilities of the police, and refers to the collection of information and evidence in respect of a crime that has been committed (Osterburg & Ward, 2014:01). Orthaman and Hess (2013) argue that criminal investigation is a combination of art and science. Regarding the latter, the emphasis is placed on the methodology of investigation, examination of evidence, and management of the evidence that has been identified. This perspective is also shared by Gilbert (2004), who maintains that it is a purposeful, procedural undertaking. The inference is that criminal investigation is a process-oriented undertaking, intended solely to gather evidence that can be used for criminal prosecution (Van Rooyen, 2012).

Detectives were asked about what they understood by the term 'criminal investigation'. The same question was repeated to the prosecutors and the following responses were recorded:

- One detective did not know what criminal investigation is.
- Three interviewees (One prosecutor and two detectives) from both sets of respondents indicated that criminal investigation is the investigation of crime, offences and criminal activities.
- Two detectives described criminal investigation as a process of identifying why a crime was committed and uncovering the truth.
- One prosecutor described criminal investigation as the investigation of crime by law enforcement agencies such as the police and judiciary, and that such investigation might lead to the institution of criminal prosecution.
- One prosecutor described criminal investigation as the procedure that takes place when a formal charge has been laid by the complainant with the police.
- One prosecutor described criminal investigation as the investigation of cases from the commission of a crime until it is finalised and the matter has been placed on the court roll for prosecution.
- One prosecutor said criminal investigation is the search for information in criminal cases.

Seven respondents attempted to define the concept of criminal investigation, although their definitions were not correct, and only two respondents defined criminal

investigation in line with the definition provided by Van Rooyen (2012:13), namely that it is referred to as a systematic, organised search for the truth. It entails observation and enquiry for the purpose of gathering objective and subjective evidence about an alleged crime or incident. One respondent was unable to define what a criminal investigation is. Although two respondents tried to define the concept 'criminal investigation', their definitions are flawed, since they as detectives deal with criminal investigations almost every day, and their replies reveal that investigators have no knowledge of criminal investigation.

2.8 CRIME SCENE INVESTIGATION

Immediately after the crime has been committed, evidence must be discovered, located, collected, documented, preserved and packaged in preparation for submission of such evidence to the forensic science laboratory.

2.8.1 Searching for Physical Evidence

According to Gilbert (2010:314), seminal stains are found in three basic areas: on the victim, within the crime scene, and on the suspect. Semen found on the suspect is of minimum value to the investigator, for its presence cannot document a criminal offence if no victim is found. Semen situated on the victim is valuable and might be located on the exterior surface of the body or within a body orifice. Semen is often located within the crime scene, normally in the specific area of the sexual offence. In searching for semen samples it is a commonly acceptable practice to use infrared light because semen shines. This is obviously not a conclusive indication of semen but marks the area that should be handled carefully and be protected (Osterburg & Ward, 2014:478).

Because semen shines under infrared radiation, the use of a portable ultraviolet lamp (black light) will aid the officer in locating seminal evidence. When evidence is located on cloth/fabric exteriors, the dried semen will have a stiff, starchy feel. If semen is still wet or damp, the evidence should be dried completely before being packaged (Gilbert, 2010:315). According to Robert (2012:347), searching for semen takes place in the most logical places: beds, sofas, car seats, and so on. However, there are non-

sexually-motivated scenes where a perpetrator might masturbate, urinate, or defecate. In fact, burglary scenes have a higher incidence of semen than one might expect. For whatever reason, perhaps after touching female undergarments or jewellery, burglars masturbate, inadvertently leaving their biological signatures. Searching for semen should therefore not be limited to the obvious crime type and should not be a one-step check of the bedroom only endeavour. A crime scene containing seminal stains is usually approached as a two-step process. First, the stain must be located. Only then can any presumptive tests begin. Often the scene may include a large number of items that might have been stained by seminal fluid, for example multiple garments, bed clothing, rugs, curtains, and solid surfaces. Searching must be conducted with the aid of an Ultraviolet (UV) light to detect the presence of seminal stains, since the UV light shortens the search, and semen fluoresces under UV light, making stains easy to locate. Another test often used at a crime scene to detect seminal fluid is the acid phosphate test. If the stain is semen, the reagent will produce a rapid colour change, with the purple appearing in less than a minute (Girard, 2011:337).

2.8.1.1 Vaginal swabbing

The vaginal cavity should be swabbed to discover the existence of spermatozoa or seminal liquid. An unstained control sample of the gathering medium must be retained and packaged separately (Osterburg & Ward, 2014:476). Nevertheless, vaginal swabbing is further explained as using two swabs at the same time, carefully swabbing the vaginal area and letting the swabs air-dry before packaging them. Using two additional swabs, repeat the swabbing procedure and smear the swabs onto separate microscope slides, allowing them to air-dry before packaging. Furthermore, vaginal swabbing can be done for the recovery of semen.

2.8.1.2 Oral swabbing

The oral cavity should be swabbed to discover the existence of spermatozoa or seminal fluid, and an unstained control sample of the gathering medium must be retained and packaged separately (Osterburg & Ward, 2014:477). Similarly, Saferstein (2011:310) mentions that swabs and smears must be taken if oral-genital contact had

occurred. Use two swabs simultaneously, swab the rectal canal, smearing one of the swabs, and prepare one smear slide. Allow both swabs and smear to air-dry before packaging them.

2.8.1.3 Anal swabbing

The anal area should be swabbed to detect the presence of spermatozoa or seminal fluid. An unstained control sample of the gathering medium must be retained and packaged separately (Osterburg & Ward, 2014:477).

2.8.1.4 Penile swabbing

The penis should be swabbed to identify the existence of blood or other evidence. An unused control sample of the gathering medium must be retained and packaged separately from the swab used to obtain the penile sample (Osterburg & Ward, 2014:477).

2.8.1.5 Cervical swabs

Using two swabs simultaneously, carefully swab the cervical area and let the swabs air-dry before packaging them (Saferstein, 2011:310). Jackson (2011:155) further explains that cervical swabs are taken if more than 2 (two) days have elapsed since the alleged rape.

2.8.2 Rape Crime Scene

Birzer and Roberson (2012:252) define a crime scene as any location or place that is being investigated by law enforcement as a result of a criminal act, and comprises the area where evidence of the criminal act may be located. The primary crime scene is where the initial crime or primary event takes place. If the offender or the victim leaves the primary scene and travels to another location, that location would be referred to as the secondary crime scene. Secondary crime scenes are related to the primary crime scene by way of evidence from the initial crime but are not the original location

of the primary event. Gilbert (2010:80) asserts that the crime scene is a location at which a suspected criminal offence has occurred. Osterburg and Ward (2014:85) refer to the crime scene as all areas in which the actors, victim, the perpetrator/s and eyewitness/es move during the commission of a crime. The crime scene is further explained as the location where the offence was committed. Criminal incidents may consist of more than one crime scene. The primary scene is the location where the initial offence was committed, and all subsequent, connected events are regarded as secondary scenes (Swanson, Chamelin, Territo & Taylor, 2012:48).

Both sets of respondents, consisting of five detectives and five prosecutors respectively, were asked what they understood by the term 'crime scene' and their responses were as follows:

- Nine persons (five detectives and four prosecutors) from both sets of respondents described a crime scene as a place where a crime was committed.
- One prosecutor said a crime scene is described in twofold which is a place where a crime was committed and as the body of a victim and of a suspect as it contains evidential material that can be found at the scene of crime. One prosecutor said a crime scene can be described as follows, namely a geographical place where a crime was committed, or as the body of a victim of crime. Regarding this matter, he added that a crime suspect may have with him evidential material that can be linked to the scene of crime.

The respondents answered the question regarding the crime scene adequately and in line with the literature, and their answers agreed with the opinion of Gilbert (2010:80), namely that a crime scene is a location at which a suspected criminal offence has occurred. One respondents gave a clear definition of a crime scene, as he covered both the primary and secondary crime scenes as described by Birzer and Roberson (2012:252).

According to Gilbert (2010:300), the rape crime scene should be processed without delay, and in doing so, the investigator should bear in mind the type of offence and the required legal elements that must be proven. The crime scene should be recorded by means of photos. The photographs should indicate the general appearance of the scene, with any indications of a struggle clearly apparent. Following the general photographic survey of the scene, specific items of evidence, such as torn clothing,

semen stains, and all other significant items should be recorded in close-up photographs. A discussion of the various areas that can be regarded as rape scenes follows in section 2.8.2.1 below:

2.8.2.1 At the crime scene

According to Fish, Miller, Braswell and Wallace (2014:151), the suspect's wet bodily fluid stains should be collected by using clean, sterile cotton swabs or clean, sterile gauze patches. If dry stains are located, it will be necessary to collect samples by cutting out the stain or scraping them onto clean, sterile filter paper and then using a druggist fold to guard against loss of the evidence. Furthermore, Swanson, Chamelin, Territo and Taylor (2012:285) state that investigators must wear powder-free gloves to protect themselves against blood-borne pathogens and to avoid leaving particulates that may be similar to those contained in some condom brands. After collecting the evidence, the investigators should package the gloves separately and submit them with the evidence so that the forensic laboratory can verify that the gloves did not leave behind any particulates. At the crime scene, investigators should make every effort to locate any used condom and its foil package. If a condom is recovered, the traces from the victim on the outside and the seminal fluids from the assailant on the inside can have the greatest evidentiary value. Regardless of the rape's locality - building, automobile, outdoor scene - certain types of evidence are likely to be encountered. Clothing from both the victim and the subject may be scattered about. All undergarments, other clothing, bedding, and other significant articles should be collected. This evidence will be examined to reveal the presence of semen, blood, or hair.

Both sets of respondents five detectives and five prosecutors were asked to mention one biological exhibit that can be found at the scene of a rape that may be useful in the investigation of rape cases. Their responses were as follows:

- Eight participants from both sets of respondents mentioned semen as one of the biological exhibits that is likely to be found at the scene of a rape.
- One prosecutor mentioned hair.
- One prosecutor mentioned swabs

The question was posed to test whether the respondents knew what to look for at the scene of a rape that could link the suspect to the crime. The answers provided by the respondents proved that they knew what to look for during an investigation.

2.8.2.2 The suspect

Due to his conception of a suspect, Gilbert (2010) advises that within a certain period of time after having committed an offences, most suspects tend to still have some evidence-worthy items on or about them. This suggests that the criminal investigation has to be timeous and thorough – for an extensive search has a high probability of the confiscation of the said items as evidence. Indeed, if the suspect is uncooperative or denies that items of evidence found on him are his, if the search was conducted timeously, the victim will still be able to identify those items found on him, be it a piece of clothing or shoes in spite of the fact that the suspect may have attempted to change his appearance after committing the crime. In the event where there was a deliberate attempt by the suspect to mislead investigators by means of a change in clothing or appearance, the police may apply for a search warrant. Now this search warrant enables the police to perform a forensic investigation, even taking possession of biological evidence such as semen, hair, blood or fibres that the suspect may have left at the scene of the crime in the event of a rape. But it may not just be the victim from whom this biological evidence may be harvested; instead, biological evidence should be obtained from the suspect as well. However, semen collected from either the suspect or the victim should not be perceived as the ultimate solution in the investigation of the criminal offence (Gilbert: 2004:354). Investigators should continue to search for additional pieces of evidence in order to execute a successful prosecution (Horswell, 2004:314). It must be noted that gathering evidence from the bodies of both the victim and the suspect is allowed; Horswell (2004:3) maintains that the victim's body is considered a scene of crime, albeit a secondary crime scene, whereas the place where the crime occurred is the primary scene. In contrast, the body of the suspect is not considered a crime scene because the crime did not take place on his person (Hazelwood & Burgess, 2001)

Two sets of respondents, namely five detectives and five prosecutors, were asked whether they considered the body of a suspect as a scene of crime and why. Their responses were as follows:

- Four detectives said the body of a suspect is not a scene of rape as it does not meet all the requirements of a crime scene.
- Three participants (one detective and two prosecutors) from both sets of respondents said the body of a suspect is a scene of rape, as it contains the evidential material that could link the suspect to the crime of rape.
- One prosecutor said the question was irrelevant.
- One prosecutor did not respond to the question.
- One prosecutor said the body of the suspect is regarded as an object that is used to commit the rape with.

Three respondents agreed that the body of a suspect is a scene of crime, namely rape. Their assertions are consistent with the opinion of Horswell (2004:3), who maintains that the biological body of the suspect should be regarded as a secondary crime scene insofar as rape cases are concerned. In contrast, five respondents disagreed with Horswell (2004:3), and maintained that the body of a suspect cannot be regarded as a rape crime scene. Their views are supported by Hazelwood and Burgess (2001:262), who argued that the body of the suspect cannot be classified as a rape scene, because it is not the place where the crime was committed.

The researcher disagrees with Hazelwood and Burgess (2001:262) and is of the opinion that the body of a suspect is a scene of rape, as it contains evidential material that can assist an investigator to link the suspect to the crime. In the opinion of the researcher there is much training to be done, as there are respondents from both sets who did not attempt to answer the question, which indicates that the respondents might ignore the clues left on the body of the suspect by the victim.

2.8.2.3 The victim

According to Fisher, Miller, Braswell and Wallace (2014:152), Physical Evidence Recovery Kits (PERKs), also known as “rape kits”, are designed by the state crime laboratories and provided to local law enforcement agencies in their local jurisdictions.

The kits contain the swabs, slides, test tubes, combs, and proper envelopes necessary for collecting all samples. The packs contain everything necessary to collect physical evidence from a sexual assault, including secretions and trace evidence, as well as known samples from the victim. PERKS that are specifically designed to collect known samples of suspects also are available for comparison by the crime lab analysts. Accordingly, the investigator must collect all clothing worn by the victim at the time of the attack. Residual vaginal or seminal fluid or hair may be present on the clothes that could be important to the investigation of the case. Swanson, Chamelin, Territo and Taylor (2012:285) maintain that victims may be able to provide valuable information about the crime, and may be able to supply important details about the condom and its wrapper. They may recall the brand itself or particulars about the odour, taste, and lubrication.

Both sets of respondents of five detectives and five prosecutors were asked whether they considered the body of the victim as a scene of rape and why. Their responses were recorded as follows:

- Three detectives said that the body of a victim is not a scene of rape because it does not meet all the requirements to be classified as a crime scene.
- One detective said he was not sure whether the body of a victim could be regarded as a scene of rape.
- Four participants from both sets of respondents said yes, the body of a victim could be regarded as a scene of rape because it contains evidential material that could link the suspect to the crime.
- One prosecutor said no, the body of the victim could be regarded only as an object of rape.
- One prosecutor did not respond to the question.

Three respondents agreed that the body of the victim was a scene of rape, as supported by Fisher, Miller, Braswell and Wallace (2014:152), in that valuable material could be found in/on the body of the victim that could be linked to the suspect. The researcher supported the response given by the three respondents because when a victim is taken to the hospital for a medical examination, such action amounts to searching a scene of crime. The response by other respondents showed that there was still a lack of understanding on how and where valuable evidence could be found

that could link the suspect to the crime. The researcher is of the view that although searching of the victim's body was not the role of the respondents, they nevertheless had a role to play to advise the victims not to bath or do anything that could destroy the evidential material left by the suspect.

2.9 VAGINAL FLUID TRACE EVIDENCE

Lyle (2012:177) states that vaginal fluid detection is difficult but might be important in non-ejaculatory rapes and penetrations with foreign objects. Swabs taken from the suspect's penis or from any suspected foreign objects can be tested for evidence of vaginal fluid. The epithelial cells that line the vagina are rich in starch glycogen which, when stained with the Periodic Acid-Schiff (PAS) reagent, takes on a bright magenta colour. If such cells are found on the suspect's penis or on the rape object, vaginal fluid could be present. A major problem with this test is that it could be unreliable. The reason is that not all vaginal epithelial cells contain glycogen. Cells from young girls before menarche contain none and those from post-menopausal women rarely do. Also, the amount of glycogen found in these cells varies with the stage of the woman's menstrual cycle. This means that a positive test is very helpful but a negative one does not necessarily mean that vaginal fluids are not present. According to Fish, Miller, Braswell and Wallace (2014:150), vaginal fluid might be located on a suspect's underpants or taken from a pubic area swabs. It is possible to generate a DNA profile if a sufficient sample is available for testing. Vaginal secretions might be important when a victim alleges that objects had been inserted into the vagina as part of a sexual assaults. Before any evidence suspected of containing vaginal secretions is collected, a sample swab should be collected, air-dried, and secured in paper packaging to avoid the loss of additional trace evidence such as pubic hairs or skin cells.

Both sets of respondents, featuring five detectives and five prosecutors, were asked about the significance of vaginal secretion in the investigation of rape cases, and their responses were recorded as follows:

- One detective did not respond to the question.

- Six participants (two detectives and four prosecutors) from both sets of respondents said that semen might be found in the vaginal secretion and could link the suspect to the crime.
- One detective said that vaginal secretion, if found on the penis of the suspect, could help to prove that there had been penetration.
- One detective said the vaginal secretion is significant for the purpose of investigation.
- One prosecutor said that vaginal secretion proves whether consent was given to have intercourse because if consent is not given, the victim will sustain bruises and cuts, as the vagina would be dry, but if vaginal secretion is present, it proves that consent was given.

Eight participants from both samples indicated that vaginal secretion, if found on the body of the suspect, could be used to link the suspect to the crime of rape. One participants did not respond to the question, and that indicates that there is a gap that has to be addressed in order for the detectives to understand what vaginal secretion is. The other participants gave a different version that was irrelevant to the research topic, and that also showed the prosecutors' lack of knowledge.

2.10 LOCARD PRINCIPLE

The Locard Principle, i.e. the theory of exchange, can be simply stated as follows: every contact leaves a trace, meaning that when a person comes into contact with an object or another person, an exchange of material occurs, therefore the person leaves something behind and takes something with him. In the case of the scene of sexual assault reported to be the suspect's residence, an investigator who applies the linkage theory would realise that physical evidence left by the victim would be the most probative proof. The application of Locard's theory would then alert the investigator to the specific types of physical evidence potentially resulting from the sexual intercourse (Birzer & Roberson, 2012:85). When two objects come into contact with each other, a cross-transfer of materials occurs. Furthermore, Houck and Siegel (2011:54) state that when two things come into contact, information is exchanged, and it seems pretty simple, yet it is the central guiding theory of forensic science. The

theory suggests that this exchange of information occurs, even if the results are not identified or are too small to have been found. The results of such a transfer would be proxy data: not the transfer itself, but the leftovers of that transaction. Furthermore, the Locard principle is based on the contact theory, which states that when two objects come into contact with each other, each one will leave a trace on the other. According to Locard's principles, the mutual transfer of traces takes place in two ways. The criminal inadvertently leaves traces at the scene or takes traces from the scene with him or her. These two ways of transferring traces are referred to as 'trace donors' and trace recipients' (Lochner & Zinn, 2015:12).

Both sets of respondents were asked what they understand by the Locard Principles, and their answers were recorded as follows:

- Eight participants (four detectives and four prosecutors) from both sets of respondents stated that they did not know what the Locard Principle is.
- Two participants from both sets of respondents said that the Locard Principle is when trace evidence from one person is found on another person, for example semen, saliva, hair, skin cells (especially under the nails of a victim) and blood.

Only two respondents indicated that the Locard Principle means that when two persons come into contact, they leave traces of evidence that can be used to link the suspect to the victim, as confirmed by the literature. However, there is a huge problem, since the majority of the respondents, namely eight from both groups, are not aware of what the Locard Principle is. That is an extremely worrying situation, since that principle is very important, especially in cases of rape because there cannot be any rape cases where there was no contact between the victim and the suspect.

2.11 THE RELATIONSHIP BETWEEN THE PROSECUTOR AND THE DETECTIVES IN INVESTIGATION OF RAPE CASES

Successful prosecution is dependent on the successful working relationship between various role-players, including investigators and prosecutors (Hess & Orthaman, 2010). Indeed, when such a rapport is achieved, it ultimately serves justice, and perpetrators are sent to prison, making the court system effective, and sustaining the

rule of law (Palmiotto, 2012). In the relationship in question, prosecutors should assist investigators by using their own knowledge of due process and procedures (Becker & Dutelle, 2013).

As far as interviews are concerned, five prosecutors were asked about the importance of the relationship between a prosecutor and detectives during the prosecution of rape cases, and their answers were recorded as follows:

- Two prosecutors stated that what is important in the relationship between the prosecutors is that they must trust each other.
- Three prosecutors said that the relationship must be a prosecution-guided investigation. For the prosecutor to succeed, he or she has to acquire the assistance of the investigation officer, and the prosecutor must guide the detective properly so that correct statements, information and evidential material can be secured.

The response by three prosecutors is confirmed in the literature, namely that a good relationship between detectives and prosecutors could bring positive results to the investigation of cases, whereas the response by other two prosecutors shows that they do not value the relationship between themselves and the detectives, and that could have a negative impact on the process of investigation.

2.12 SUMMARY OF MAJOR ARGUMENTS IN THE CHAPTER

- The emphasis of this chapter has been dedicated to establishing the genuine significance of semen in the investigation of rape cases.
- In this chapter, the meanings of rape, criminal investigation and semen were discussed in order for the investigator to understand the field of study.
- The searching, collection, preservation, and packaging of semen evidence were also addressed to show the important role that semen fulfils as evidence.

The next chapter discusses the challenges in respect of semen as evidence in court.

CHAPTER 3: CHALLENGES FACED BY THE COURT WHEN USING SEMEN AS EVIDENCE

3.1 INTRODUCTION

This chapter discusses semen used as evidence in court. Semen comprises a component of the evidence that emerges when the suspect penetrates the victim. Due to this contact, there is always semen that can be found at the scene of a rape. It is, however, difficult to discuss all the exhibits left at the scene of the crime in this research, hence the research's focus is on semen as evidence in court. The role played by semen is of paramount importance in the investigation of rape cases. Investigators should be aware of the challenges that they may face when using semen as evidence during an investigation. Semen as evidence, if used incorrectly, can be of no use in the investigation of rape cases.

In this chapter, the study focused on challenges faced by the court when using semen as evidence. Furthermore, the study delved into the meaning of evidence, identification of semen, chain of custody of evidence, the Locard Principle, admissibility of evidence, as well as the importance and challenges of semen as evidence.

3.2 MEANING OF EVIDENCE

Girard (2011:53) maintains that evidence consists of information, knowledge, and insights that have been presented in respect of a particular crime. However, in the opinion of Osterburg and Ward (2010:326), evidence is any information or witness account that is permitted to be led in the court of law with the consent of the judge. Similarly, Shaler (2012:593) states that evidence is any information, eye-witness account, or an item that is directly linked to a crime that has taken place. Such item could be a photograph, a piece of clothing, semen, hair – anything that is relevant to the crime under investigation or prosecution (Van Rooyen, 2008:17).

Following from literature on evidence, detectives were asked what they understood by the word 'evidence', and their responses were recorded as follows:

- Two detectives describe evidence as anything that is found at the scene of a crime and that can be used as evidence in a court of law.
- Three detectives said evidence is something that can confirm or prove that a crime was committed.

Although three participants described evidence as anything that is found at the scene of a crime and can be used as evidence in court of law, they did not understand that it must be able to link the suspect to the crime. The other two participants were unable to mention that evidence must link the suspect to the crime and can be used in a court of law. In summation, the student researcher regards evidence as anything tangible or intangible or named by word of mouth - that can be used to link the suspect to the commission of an offence.

3.3 THE COLLECTION OF SEMEN AS EVIDENCE

There are several protocols that must be adhered to in relation to the collection of semen as evidence, including the following: all clothing of the victim must be removed from the body and stored in an appropriate bag; a clean sheet must contain the clothing; the undressing must take place while the victim is standing ideally on a piece of paper so that all evidence that emerges from this process can be collected. The paper on which the undressing took place must be carefully rolled in order to ensure that every piece of paper containing evidence is collected (Saferstein, 2013:381). As for the collection of semen, it must be collected by means of a swab, and afterwards it must be stored in the swab holder (Robert, 2012:350).

In respect of primary data regarding the protocols in respect of collecting semen as evidence, detectives were asked to name a single guideline in relation to the collection of semen evidence and their responses were as follows:

- One detective said that the right equipment must be used and the evidence must be sealed.
- Two detectives said that the collecting officer must make sure that the semen is not contaminated.

- One detective stated that the evidence must be swabbed and the victim's clothing must also be swabbed
- One detective said it must be done by the doctor.

All five detectives were unable to give a clear guideline to be followed when collecting seminal evidence, and the student researcher regards that as a shortcoming to be attended to because it shows that evidence is contaminated by the detectives before it can be collected, and that could result in the suspect being acquitted.

3.4 PACKAGING OF SEMINAL EVIDENCE

As far as the framework for packaging is concerned, Osterburg and Ward (2014:478) advise that the items of clothing should not be mixed with each other, but must be stored separately, in order to avoid contamination (Girard, 2011). The authors further advise that if there is semen on the clothing, care should be taken that it does not flake and fall off. Moreover, every piece of clothing must be submitted to the laboratory in order for every available piece of evidence to be harvested. Lastly, the paper on which the undressing took place must be rolled carefully and be stored in such a way that no evidence is lost (Gilbert, 2010:315).

Detectives were asked about how seminal evidence should be packaged, and their responses were recorded as follows:

- One detective indicated that packaging is done by the doctors.
- One detective indicated that semen is packed in a tube, which is numbered, placed in an evidence bag and sealed.
- One detective said seminal evidence should be packaged in a separate evidence bag and be sealed to avoid it being tampered with.
- One detective said seminal evidence must be packaged in an evidence bag, which is then sealed, and form J88 is completed.
- One detective said the semen is packaged in a sexual crime kit by the doctor.

Three detectives indicated that evidence must be packaged in the evidence bag, but two detectives said that packaging is done only by a doctor. From the four who

indicated that semen is packaged in an evidence bag, only one detective indicated that a J88 form must be completed to indicate that indeed the evidence was collected by a medical doctor from the suspect, whose particulars must be indicated on the form. This is in line with the literature. The researcher identified that all detectives who were interviewed were unable to indicate that the evidence bag should be made of paper and not plastic material and should not be folded.

3.5 PRESERVATION OF DRIED BIOLOGICAL EVIDENCE

There are several methods of preserving biological evidence, but the best way is to freeze it (Dutelle, 2011:232). Nevertheless, the storage temperature should be constant, and variability must be avoided. Even the material that is used to store DNA in transit must be frozen, including the DNA packet. Regarding the latter, Savino and Turkey (2005:83, 84) indicate that there should be no perforation in the packaging, to avoid the spoiling of contents. “When collecting wet or only partially dry items, roll or wrap them first in a clean paper, then use paper bags, not plastic, for packaging, as they allow the evidence to breathe”.

Against that literary background, detectives were asked about how semen samples should be preserved and their responses were recorded as follows:

- One detective said it is preserved by keeping it in storage.
- One detective said it must be closed in a tube and not exposed to heat.
- Two detectives were unable to respond to the question.
- One detective said preservation of semen as evidence is done by the doctors.

The responses from all these participants (detectives) were not in line with the literature and the researcher regards this as a serious shortcoming, as the detectives are tasked to do investigations on a daily basis, and for them not to be able to understand how semen as evidence is preserved could lead to the evidence being rejected by the court.

3.6 THE USE OF CONDOMS TO TRACE EVIDENCE

Gilbert (2010:316) explains that condoms are valuable in tracing evidence, as a specimen of semen may still be present as a result of their use. Various lubricants, powders, and spermicides commonly left by condoms could assist the investigation in many ways. After samples of the condom's residue have been obtained by medical personnel, the individualized traces could provide evidence of penetration that is necessary to establish the evidence that a crime of rape has occurred. Traces may also be used to detect a specific brand of condom, which could help to link a suspect to the scene, if similar brands are located in his vehicle or dwelling. According to Fish, Miller, Braswell and Wallace (2014:158), the establishment of the CODIS (Combined DNA Index System) database appears to have encouraged sex offenders to begin using condoms when committing rape assaults. Just as burglars and other criminals use gloves to prevent leaving their fingerprints at the scene of a crime, sex offenders often use condoms to prevent leaving seminal fluid evidence (DNA) at the scene of the crime they commit. When a condom is thrown away, valuable evidence is lost that cannot be recovered. To overcome that problem, forensic scientists are now trained to detect and trace evidence left by the condoms. Condom traces found inside a victim could provide evidence of penetration. Serial rapists tend to use the same brand of condom to commit repeated attacks, and the trace evidence could be utilized to link the perpetrator to multiple assaults. Discarded packages may have fingerprints on the outside, and trace materials may be located on the inside of the package, linking it to the victim and/or the suspect.

Robert (2012:359) explains that in an age filled with the fear of contracting diseases such as AIDS and other sexually transmitted diseases, individuals often practice safe sex by using condoms. Even sexual assault assailants wear them, probably not out of fear of contracting a disease but more likely to avoid leaving DNA evidence. When this happens, the value of the semen as evidence and the victim's vaginal secretions or saliva on the assailant's penis is lost to the investigation. While the important DNA may be gone, condoms often leave trace evidence that could still help the investigation. Condoms leave trace evidence in the form of particulates, lubricants, and spermicides.

Five prosecutors were asked about the importance of condom trace evidence in the prosecution of rape cases and their answers were recorded as follows:

- One prosecutor said that condom trace evidence could not carry much weight and that it would have to be supported by other evidence.
- Two prosecutors said condom trace evidence could be used in order to try to connect the suspect with the crime and that it was important to inspect the used condoms to identify the semen, pubic hair and condom covers that contain fingerprints that could link the suspect to the crime.
- Two prosecutors said that condom trace evidence could link the suspect, as they are DNA samples that might be found in the condom.

The responses by the four prosecutors are in line with the literature, as supported by Gilbert (2010:316), namely that traces found in the condoms could be helpful to by linking the suspect to the crime. This sentiments was also expressed by Robert (2012:359). The researcher regards condom trace evidence as vital in linking the suspect to the crime of rape because a used condom is seldom reused by another person.

3.7 PHYSICAL EVIDENCE

According to Lochner & Zinn (2015:39), physical evidence is anything that one can carry into a courtroom and place it on a table in front of a presiding officer. Gilbert (2010:53) describes physical evidence or real evidence as any kind of object related to the investigation, but it must be a physical, solid item, unlike other forms of evidence that may result from sensory observations or inferences. Van Rooyen (2008:110) argues that physical evidence is an object that is shown or exhibited to the court officials so that the latter can see, touch or even taste it. Fish, Miller, Michael, Wallace and Anderson (2014:420) concur, noting that physical evidence is any and all objects that could establish that a crime has been committed or could provide a connection between a crime and its victim, or a crime and its perpetrator, and any such objects are used in the discovery of the facts. Houck and Siegel (2011:585) aver that physical evidence consists of objects that help link a suspect to a crime scene or explain the circumstances of the incident. It may consist of physical evidence such as fingerprints,

fibres, blood or weapons, or it may be demonstrative evidence, which consists of supporting material such as crime scene photos or skeletons.

3.8 IDENTIFICATION OF PHYSICAL EVIDENCE

Lyle (2012:37) explains that the person finding the evidence item must mark it for identification if it is possible to do so without damaging the evidence or changing any of its specific identifying characteristics. In doing so, the officer may simply write or mark his initials onto the item itself; for example, he might mark his initials on the side of a shell casing. Later, in court, he could then positively identify the said shell casing as the precise one he found at the scene. The item is then placed into an evidence bag, which is initialled by the finder. The identifying information on the evidence bag should include the case number, the name and description of the item, the person finding it, witness to the discovery and recovery, and the date, time and location of the find. If the item itself cannot be safely marked, it is placed into a suitable container or packaging, and this in turn is placed into an evidence bag. Both the item container and the evidence bag must be clearly marked and initialled.

Van Rooyen (2008:174) argues that all evidence received should be exclusively marked so that it can be identified later. The desirable way is to initial and date all items. Marking the original document is not impractical; the document should just be placed in a pre-marked, initialled and dated envelope which is then wrapped. Gilbert (2010:94) states that after an item of evidence has been located and recorded in field notes, it must be properly marked. It is a legal requirement that all solid evidence must be engraved for future identification. The marking of evidence occurs during the search phase as each item of evidence is located and collected. The type of mark placed on the object depends on the following factors:

- The size of the object
- The physical nature of the object (i.e. solid or liquid)
- The value of the object, and
- The number of like objects.

If the evidence object is of appropriate size, the markings should include the case number, date, time, and initials of the marker. However, not all evidence is large

enough to bear numerous markings. Evidence too small to be marked directly must be placed in a container and the exterior surface of the container should be marked. Not all crime-scene evidence is in solid form. For example, blood and other bodily fluids and some types of narcotics are non-solid (liquid) evidence items, often present at a crime scene. Obviously, the fluid or semi-fluid type of evidence cannot be marked directly. If this is attempted, contamination will occur. Such evidence must be carefully packed in airtight containers (e.g. cellophane bags or glass vials). All relevant information is then marked directly on the container, using a permanent marking instrument. To be admissible in court, an item of evidence must be shown to be identical to that discovered at the crime scene or secured at the time of arrest. In order to make an identification with certainty, and thereby excluding a successful challenge, some method of marking each item of evidence must be developed, the marks serving to connect each bit of evidence to both the investigator and defendant or scene. If possible, they should include the date and location of the acquisition of the evidence. Attempting to squeeze this information onto a small item would be impractical, but an envelope, bottle, or other container provides an enlarged labelling surface. Plastic containers are preferred because this material is less likely to break or contaminate the evidence (Osterburg & Ward: 2010:108).

3.9 MAINTAINING THE CHAIN OF CUSTODY

According to Fisher and Fisher (2012:09), the concept of a 'chain of custody or chain of evidence' is critical knowledge that every detective should have. The court will need proof that evidence collected during an investigation and the evidence finally submitted to the court are one and the same. To prove that the integrity of the physical evidence has been maintained, a chain of custody must be proved. This chain shows who had contact with the evidence, at what time, under what conditions, and what changes, if any, were made to the evidence. Such changes would amount to tampering, which would render the evidence inadmissible. The documentary proof of a chain of custody could also be used to help locate evidence years later, in case additional testing is required (i.e. post-conviction testing). Typically, evidence is placed in a container with a label or is labelled itself. Identifying information relating to the case is written on the

container or tag as well as in reports and logs to establish the chain. Police department policy may prescribe which information is needed to establish the chain of custody:

- Name and initials of the individual collecting the evidence and each person subsequently having custody of it;
- Dates the item was collected and transferred;
- Agency, case number and type of crime;
- Voucher or property clerk number;
- Victim's or suspect's name;
- Storage location; and
- Brief description of item.

Fisher, Miller and Braswell (2014:22) note that the chain of custody refers to the documentation specifying the location of all forensic evidence at all times. It is important for the crime scene investigator to stress the importance of the chain of custody in respect of the entire crime scene, from the time of the first officer or emergency responder arriving on the scene until the detectives release the location at the conclusion of the crime scene search. The integrity of the entire area must be maintained and documented as each individual item of evidence is logged on the evidence sheet, in a photography log and a scene sketch. The 'who-what-when-where-why' questions must be addressed in the investigator's notes and communicated to the detectives so that valuable time will not be wasted tracking down first respondents to determine their actions prior to the arrival of the crime scene investigator. The chain of custody provides a sequential timeline that accurately describes the journey of the evidence during the life of the case. It shows the actions that were taken to identify, collect and preserve the integrity of the forensic evidence, and plays an essential role in the admissibility of evidence into the courtroom proceedings. A break in the chain of custody may weaken or even disqualify the evidence and remove it from the consideration of the court.

Shaler (2012:165) agrees that the chain of custody is a vital document because it represents the history of a piece of evidence. It is critical to ensure that the evidence history is never lost. It documents the evidence from the time it is packaged at the crime scene, to its transfer to the labs, property rooms, courts, to when it is eventually

destroyed. The team leader must ensure that each item of evidence collected has a documented, signed history. This signature represents its transfer history, which must remain intact until it is eventually destroyed. It does not matter whether it goes to the police property clerk's office and remains there forever or whether it has a transfer history from the scene to the crime laboratory to the court and back to the property clerk's office. This is the history of the movement of the evidence within the criminal justice system, therefore it must remain intact. A break in that history, also known as a 'break in chain', compromises the integrity of the evidence and places it at risk of not being admissible in a court of law. Osterburg and Ward (2010:108) maintain that evidence must be continuously accounted for from the time of its discovery until it is presented in court. Anyone who had it in their possession, even temporarily, may be called upon to testify as to when, where, and from whom it was received, what (if anything) was done to it, to which official it was surrendered to, and at what time and date. The greater the number of people handling the evidence, the greater the potential for conflicting statements, or contradictions in their testimonies. Any disruption in the chain of custody may cause evidence to be inadmissible. Even if it is admitted, a disruption could weaken or destroy its probative value.

When evidence is found at the scene, the investigator must be able to account for it. Accounting responsibilities begin when the item is first located and do not end until the evidence reaches the courtroom. Being able to account for the location and possession of evidence is known as 'maintaining the chain of custody'. This accountability procedure is very important, for if a break in the chain occurs, the item will not be admitted as evidence in court (Gilbert, 2010:92). From the moment when evidence is received, its chain of custody must be maintained. A note must be made when the item is received or when it leaves the care, custody or control of the forensic investigator. This is best handled by a record-keeper when the evidence is received. Record should be kept of:

- What items were received;
- When they were received;
- From whom they were received; and
- Where they are maintained (Van Rooyen, 2008:173).

According to Lochner and Zinn (2015:14), the 'continuity of possession' is a term that covers a process. In this process, physical evidence, clues or exhibits are found, identified as an exhibit, and seized at the scene of the incident. Such exhibits are recovered, stored, packaged, analysed, transported and presented in court as an exhibit, physical evidence or a suspect. The continuity of possession is the chronological history of the evidence. In the event of any changes being made to the evidence, such changes must be fully disclosed during the investigation and during any form of trial. The investigator must be able to prove that the integrity of the evidence has been maintained and, by doing so, he or she will authenticate the physical evidence. This is one of the essential principles in the investigation of an incident. The chain of custody can prove who had contact with the evidence, at what time, under what circumstances, and if changes were made to the evidence. Being able to account from the time when the physical evidence was found or seized and continuing the safekeeping of physical evidence until it is presented in court is known as 'maintaining the chain of custody'. Proof of chain of custody is essential in evidence collection, since loss of this continuity of possession might render the evidence inadmissible in court. The defence could call into question the authenticity and integrity of the evidence since outside contamination could not be ruled out. For this reason, every person who handles the evidence must be accounted for and recorded, and this chain of custody must remain unbroken from the crime scene to the courtroom (Lyle, 2012:37).

According to Houck and Siegel (2011:586) almost all real evidence is subject to authentication. It must be clearly shown that evidence is in the same condition from the moment it was seized at the crime scene until it is used in court. It must have 'sponsors' who can identify it and follow its trail. The only exceptions to rigorous authentication of real evidence occur when such evidence has some unique characteristics that make it differentiable from all other objects. The most commonly accepted method for authentication of evidence is the chain of custody, which is both a process and a document that records the transfer of evidence from the custody of one person to another. The process of authentication starts at the crime scene or anywhere the evidence is seized. Each item of evidence is given a unique identifier, and each piece of evidence is packaged separately in a tamper-proof container and sealed. The official who packages the evidence affixes his or her signature or initials

and the date to the evidence container. Every time someone, such as a forensic scientist, opens the container to examine the evidence, that person must do so in such a way as not to disturb the already affixed seals. A substantial break in the chain of custody, either the process or documentation, could result in the evidence being excluded from admission to court. In such cases, the defence lawyer must show that the break in the chain could have reasonably resulted in the evidence being adulterated or otherwise tampered with. Furthermore, Lushbaugh and Weston (2012:45) state that the chain of custody must be established when evidence is offered as an exhibit in court. Whenever possible, if the officer locating the evidence is not the investigator assigned responsibility for the case, the evidence should not be disturbed until its location and nature can be brought to the attention of the responsible investigator. It should also not be moved until its location and description have been noted, photographs have been taken at the scene, and measurements have been made to demonstrate its original location. Adherence to standard and required procedures in every case is the best guarantee that the collection and possession of physical evidence survives a court test of what happened or could have happened - to it from the time of its being found to its presentation in court. Any deviation from standard procedures in processing physical evidence could affect credibility and contributes to a reasonable suspicion about the entire police investigation in the minds of the triers (judge/jury) examining the evidence of rape

The researcher agrees with all the above-mentioned authors (Fisher and Fisher(2012:09), Van Rooyen(2008:173), Gilbert(2010:92), Lochner and Zinn(2015:14), Houck and Siegel(2011:586), Lushbaugh and Weston(2012:45), Osterburg and Ward(2010:108), Shaler(2012:165), and Fish, Miller and Braswell(2014:22) that the chain of custody should be maintained until the evidence is presented to the court. The above-named authors differ from Gilbert (2010:92), in that according to Gilbert (2010:92), any break in the chain of custody renders the evidence inadmissible, whereas other authors mention that such break weakens the admissibility of such evidence but that it could still be admissible.

Both sets of respondents were asked about the significance of the chain of custody in the investigation of rape cases and they responded as follows:

- Two detectives indicated that they did not know what the significance of the chain of custody is in the investigation of rape cases.
- Eight persons (three detectives and five prosecutors) from both sets of respondents mentioned that the significance of the chain of custody is that it proves to the court that the evidence has not been tampered with from the time it was collected until it was presented before the court of law, and it also proves to the court who had access to the evidence and how it was handled.

These submissions by eight respondents are in line with the contentions of Shaler (2012:165) and Gilbert (2010:108), namely that evidence must be continuously recorded to show who has had contact with it until it is submitted in court. Two detectives did not respond to the questions, which suggests that there was a problem, since other detectives were not aware of how evidence should be taken care of until it is submitted in court.

3.10 ADMISSIBILITY OF EVIDENCE IN COURT

This section discusses several concepts pertinent to the admissibility of evidence in court, in particular the rules of admissibility, the relevance, and the quality of evidence, among other things.

3.10.1 Rules of Admissibility

Evidence must be relevant and competent in order to be admissible as evidence in a court of law. A discussion of the relevance of evidence follows below.

3.10.1.1 Relevance

According to Houck and Siegel (2011:588), if evidence is factual, it means that it applies to a matter dealing with the case at hand, not some other case. As an example of materiality, a man is on trial for raping a woman, and his penis might indicate that he has had sexual intercourse with a woman. The other component of relevance is probativeness. To be considered relevant, it must have some reasonable tendency to help prove or disapprove some fact. It need not make the fact certain, but it must at

least tend to increase or decrease the likelihood of some fact. Schwikkard and Van der Merwe (2002:20) conclude by indicating the hallmarks of admissible evidence: relevance. Joubert (1999:332) concurs, noting that admissibility of evidence is the extent to which it proves or disproves a legal proposition. Section 210 of the Criminal Procedure Act 51 of 1977 deals specifically with relevance of evidence, and as Van Rooyen (2008:245) indicates, it notes the correlation between relevance and admissibility.

Both sets of respondents featured five detectives and five prosecutors, who were asked about what they understood by the relevance of semen as evidence, and they responded as follows:

- One detective said that the relevance of evidence was for the purpose of analysis.
- One detective said he did not understand what the relevance of evidence was.
- Four participants (one detectives and three prosecutors) from both sets of respondents indicated that relevance meant that the evidence must be able to link the perpetrator to the crime.
- Two prosecutors said that relevant evidence could be described as evidence that should have a direct bearing on the facts of a particular case.
- Two detectives said that it meant that the evidence must be relevant to the suspect.

The submission by two prosecutors is supported by Joubert (1999:332) and Houck and Siegel (2011:588), namely that relevant evidence is evidence that is appropriate to the facts of the crime. The responses of the other respondents were irrelevant as those answers were not in agreement with the literature, and that indicated that some respondents would not know which evidence would be helpful to prove the matter in a court of law.

Both sets of respondents of five detectives and five prosecutors were asked to name one factor to be considered in order to ensure admissibility of semen as evidence, and their responses were recorded as follows:

- One detective said that because it was collected from the victim it had to be admissible.

- One detective said it was considered as admissible because semen from different people was unique.
- One detective said to ensure admissibility of semen, the evidence ~~it~~ must be collected by a specialist, using the proper equipment.
- One detective said it was considered admissible because it contained DNA.
- One detective stated that the custody of semen as evidence played a major role in the admissibility of semen as evidence.
- Two prosecutors asserted that one factor to be considered to ensure admissibility of evidence was that the chain of custody had to be intact or not broken.
- One prosecutor said one factor to be considered to ensure admissibility of evidence is that the accused must have given his or her consent for the taking of samples; the victim should also have been examined by the doctor and that whatever was found should be used in court.
- One prosecutor said to ensure admissibility of evidence, the investigation must be conducted properly and by trained investigators.

One prosecutor said in order for evidence to be admissible it must be properly sealed and numbered.

The responses by all respondents are admissible as they all speak to the admissibility of semen as evidence; however the response by one respondents that semen as evidence is admissible because semen from different people is unique, is not supported by the researcher because semen from two identical twins might be found to be the same, since their DNA profiles are the same.

3.10.1.2 Uncontaminated evidence

The crime scene investigation is enhanced by three principles, namely organisation, thoroughness and caution (Fisher, 2000:53). However, accumulated evidence must be analysed, and regarding this issue, Gardner (2005:347) argues that it is clean, separate and specific evidence that offers a high probability of prosecution success. In other words, prosecution is impacted heavily by the quality of evidence, how it was analysed and how it was presented. This is effectively the Locard Principle, which holds that the perpetrator of crime always leaves evidence at the scene of crime, and

therefore all evidence, including biological exhibits, must be handled in accordance with established protocols.

Both sets of respondents were asked about what they understand by contamination of semen as evidence, and their responses were recorded as follows:

- Three participants (one detectives and two prosecutors) from both sets of respondents do not understand what contamination of evidence is.
- One detective stated that contamination of evidence is when evidence is tampered with to such an extent that it is not admissible in court.
- One detective said that contamination of evidence means that evidence was not collected in accordance with proper procedures.
- One detective said that contamination of evidence is when the process of investigation is tampered with.
- One detective said that when one seal is broken it means the evidence is contaminated.
- One prosecutor said that contamination of evidence occurs when evidence has not been properly stored in the sealed kit that was used to collect and store the samples, thereby leaving the evidence exposed and rendering it useless for comparison and analysis purposes.
- One prosecutor said it is to ensure that evidence is not tampered with.
- One prosecutor said contamination of evidence results from the tampering of evidential material.

The submission by seven respondents shows that they understand contamination of evidence, but three respondents did not understand what contamination of evidence is, and that implies that detectives are contaminating evidence without knowing the impact on the subsequent prosecution.

3.10.1.3 Constitutionally and legally obtained evidence

In terms of section 35(5) of the Constitution of the Republic of South Africa, Act 106 of 1996, evidence obtained in a manner that violates any right in the Bill of Rights must be excluded if admission of that evidence will render the trial unfair or will otherwise be detrimental to the administration of justice.

3.11 CHALLENGES OF USING SEMEN AS EVIDENCE IN INVESTIGATION OF RAPE CASES

The literature review names several challenges involved in using semen as evidence. First, in some instances, especially in backwaters and poor economies, there may be a lack of capacity to analyse biological evidence (Held, Myka, McLaughlin & Juliana, 2014). Lack of capacity sometime leads to delays in analysis of the specimen, and this may compromise the integrity of the evidence. There are challenges relating to rape kits as well. Taylor (2014:745) argues that the processing by means of rape kits may traumatise the victim. Rape kits do inadvertently release private information about the victim. Lastly, rape kits are expensive.

Following on the discussion that rape kits are exceedingly expensive, primary data indicates that purchasing these kits may prove to be a wasteful expenditure, due to the following reasons:

- The suspected perpetrator may not have left DNA due to the fact that he did not ejaculate semen.
- In an instance where the suspect left some semen, the low volume of sperm available may make harvesting it not easily possible.
- In instances where the victim reported the offence too late, all evidence may have disappeared by the time harvesting/collection of evidence begins.
- Some victims actually wash/bath off the evidence through ignorance.

There are constraints and challenges with regard to the government and police departments mainly that they have limited funds, and this makes them invest very little in rape kits. In this instance, cost undermines justice. In some others, however, rape kits are simply handled incorrectly, leading to a challenge regarding the collection of semen as evidence. However, as DNA science has evolved and grown, attacks on the veracity of this evidence have diminished, but the challenges remain (Held, Myka, McLaughlin and Juliana, 2014).

Five prosecutors were asked about the challenges associated with the use of semen during prosecution of rape cases and they responded as follows:

- Three prosecutors mentioned that one of the challenges associated with semen is that sometimes the prosecution receives a report from the forensic science laboratory that not enough semen could be obtained from the exhibit, hence a DNA comparison could not be done.
- One prosecutor stated that one of the challenges associated with semen is in the case of identical twins, who have the same DNA.
- One prosecutor said that one of the challenges is that if a sample has been contaminated, the DNA cannot be used to link the suspect.

The submissions by the respondents are supported by the literature, except in the case of one prosecutor, who indicated that one challenge is that when rape has been committed by one of identical twins, it becomes more difficult to prove whose semen was collected from the victim.

The researcher regards the matter of the identical twins as a challenge that needs serious attention in order to avoid a situation where justice is not served to the victim, after the court was unable to identify the suspect.

3.12 SUMMARY

This chapter discussed semen used as evidence in court. As is the case with any other evidence, semen used as evidence must meet certain admissibility requirements before it can be allowed in court. The main requirement is that the integrity of the sample must remain intact by maintaining the chain of custody.

In this chapter, the meaning of evidence was discussed. The following concepts were also discussed, namely identification of semen, chain of custody of evidence, the Locard Principles, admissibility of evidence, and challenges in respect of semen as evidence. The next chapter outlines the findings and recommendations with regard to semen as evidence in the investigation of rape cases.

CHAPTER 4: FINDINGS AND RECOMMENDATIONS

4.1 INTRODUCTION

This chapter concludes the study by illuminating the findings of the study, and also offering recommendations. An analysis of the importance of semen in the investigation of rape cases is the topic under investigation. Among others things, and indeed as part of the recommendations, this research will help investigators and courts to analyse semen as evidence in the investigation of rape cases. The value and challenges in respect of semen as evidence are also addressed.

The following research questions were explored:

- What is the importance of semen in the investigation of rape cases?
- What are the challenges faced by courts when using semen as evidence?

The researcher was motivated to carry out this research in order to guide investigators to recognise the significance of semen in the investigation of rape cases. Even though investigators are not medical practitioners, they should have a comprehensive knowledge of how semen may improve their investigation.

4.2 FINDINGS AND CONCLUSIONS

Based on the literature, the researcher came to the following conclusions and findings

4.2.1 Findings Related to Research Question 1, the findings in this research are the following:

4.2.1.1 As stated in the literature, rape means unlawful and intentional sexual intercourse with a person without the person's consent. The participants described rape in various forms and four respondents said that rape was unlawful and intentional sexual intercourse with another person without the person's consent. However, the researcher concluded that rape is unlawful and intentional sexual intercourse with

another, whether male or female, without the consent of the victim. In this study, it was discovered that rape is when two persons - either male or female - have sexual intercourse without the consent of the victim.

4.2.1.2 From the literature, statutory rape means sexual intercourse by either a male or a female with a minor under the age of 16, and such a minor cannot give valid consent. Seven interviewees described statutory rape as when an adult person has sexual intercourse with a minor under the age of 16. Moreover, other participants indicated only that statutory rape is when a person has sexual intercourse with a minor, without indicating the specific age group, and one participant gave the correct definition of statutory rape in terms of Section 15 of the Sexual Offences Act 32 of 2007. On the basis of the above-mentioned responses, the researcher determined that statutory rape is when a minor between the ages of 12 and above but under the age of 16, gives consent to have sexual intercourse. The majority of respondents attempted to define what statutory rape was, although their definitions differed slightly from the definition obtained from the literature. The researcher found that although the majority of participants did not do well in respect of this issue, they do have a basic or vague understanding of what statutory rape is.

4.2.1.3 According to the literature, semen is a greyish, male reproductive fluid that is produced mostly during orgasm. The participants (interviewees) described semen as a male bodily fluid that is secreted via the reproductive organ. The findings of this research are that semen is a male reproductive fluid that is excreted through the male reproductive organ, is ejaculated during orgasm, and that it may differ in colour. In fact, some said it was greyish-white and others added that it was a slightly alkaline mixture. Generally, the participants were not aware of what exactly semen was, and only two attempted to give a clear definition of what it was, while one participant did not know what it was.

4.2.1.4 In this research it was found that semen plays an important role in linking suspects of rape when no clue is available and all other available evidence is unable

to prove the case. The majority of participants indicated that semen could link the suspect to rape, but one participant did not know.

4.2.1.5 From the literature, criminal investigation means the collection of information and evidence for detecting, arresting, and convicting suspected offenders. The participants and literature share a common understanding, with minor differences, of what criminal investigation is. One respondent totally unable to attempt to explain what criminal investigation is. In this research it was found that criminal investigation is the method used to uncover the truth.

4.2.1.6 In this research it was established that the crime scene is the place where the crime was committed and where physical evidence may be found. Both the literature and participants (interviewees) share a common understanding of the definition of a crime scene.

4.2.1.7 The finding in relation to the collection of semen as evidence shows that semen can be collected from various places, starting with the suspect, the victim's body, a bed and car seats. Both the participants and the literature adequately describe the places where semen could be collected.

4.2.1.8 According to the literature, seminal fluids, blood and hair are some of the biological exhibits that can be found at the scene of rape. The literature and participants were unanimous regarding this matter.

4.2.1.9 According to the literature, the body of the suspect is considered a scene of crime as it contains evidential material that can be used to link the suspect to the crime. Only four participants did very well, as they were in agreement with the literature that the body of the suspect is a scene of crime, but the majority of the participants did not give meaningful feedback.

4.2.1.10 According to the literature, the body of a victim is a scene of crime. Only four participants gave meaningful feedback, whereas the majority of the participants did not respond well.

4.2.1.11 In this research it was found that vaginal fluids play an important role to link the suspect with the crime of rape. Only six participants gave meaningful feedback that was in line with the literature, three participants gave feedback that was not supported by the literature, while one participant did not know.

4.2.1.12 As seen in the literature, the Locard Principle refers to the theory that states that when two objects come into contact, clues are left behind, and this is called the 'contact theory'. Only two participants responded to the Locard Principle accordance with the literature, but the majority of the participants did not know what the Locard principle is.

4.2.1.13 According to the literature, a good working relationship between the prosecutor and investigator could assist the investigator to acquire a sound understanding of the criminal prosecution process. In this regard, three prosecutors contributed meaningful feedback that was in line with the literature, whereas two prosecutors' responses were not supported by the literature.

4.2.2 Findings Related to Research Question 2

In respect of the research question: "What are the challenges faced by the court when using semen as evidence?" The findings in this research were as follows:

4.2.2.1 According to the literature, evidence is anything that a judge permits to be offered in court to prove the truth or falsity of the question at issue. Only two participants stated that evidence was something that could be used before a court of law to prove that a crime has been committed but according to the literature, the evidence must also be able to link the suspect to the crime. The researcher found that

although the participants' main task had been to prove whether there was enough evidence to prove guilt or to acquit the accused, their response had not been satisfactory.

4.2.2.2 According to the literature, for evidence to be admissible it must be relevant and reliable. The responses of two participants were similar to the opinions expressed in the literature. The majority of the participants gave meaningless feedback, since they associated relevant evidence with linkage to the suspect.

4.2.2.3 According to the literature, the significance of the chain of custody is that adherence to standard and required procedures in every case is the best guarantee that the collection and possession of physical evidence will stand a court test of what happened or could have happened to the evidence from the time of its being found to its being presented in court. Eight participants' opinions showed the importance of the chain of custody in line with the literature and only two did not know what the importance of the chain of custody was.

4.2.2.4 According to the literature, condoms can be used to trace semen left by the suspect and seminal fluids from the victim, if rape of a female has been committed. The responses by four participants indicated that condom trace evidence can be used to link the suspect, and that is supported by the literature, while one other participant was of the view that condom trace evidence had to be supported by other evidence in order to carry much weight.

4.2.2.5 The literature indicates that evidence must be relevant, competent and reliable in order to be admissible in court. Four participants gave meaningful feedback that in accordance with the literature, but the majority lacked understanding of what relevant evidence.

4.2.2.6 According to the literature, one factor to be considered to ensure admissibility of evidence is that it must possess a reasonable capability to help prove or disprove some facts. The responses by the participants differ from the opinions in the literature but prove that participants do understand what has to be considered to ensure admissibility of evidence. Their responses focus more on the evidence of such a nature that it will connect the suspect with the crime, or that it has been collected properly.

4.2.2.7 In the literature, uncontaminated evidence is described as evidence that is clean, separate and specific. The majority of participants agree with the literature, except for three participants, who did not know what uncontaminated evidence is.

4.2.2.8 According to the literature, a challenge regarding the use of semen as evidence in the investigation of rape cases is the lack of capacity to analyse the great number of cases involving semen as evidence. No literature that was found that talks to the challenges that the court are directly faced with when using semen as evidence except that court are faced with challenges that emanated from the South African Police Services and analysts. The responses from the participants are relevant to the question, although they are not related to what is stated in the literature but they are nevertheless relevant.

4.3 RECOMMENDATIONS

The recommendations made as a result of the findings of this research are as follows:

Research Question 1:

4.3.1 It is recommended that In-service training and workshops be provided to the research participants and their colleagues in order for them to be introduced to the legal definition of rape, as most of them gave a social definition of rape.

4.3.2 It is recommended that importance of semen must be included in the police training manual but for those who already went to the training is recommended that workshop and In-service training be provided.

4.3.3 It is also recommended that in-service training and workshop must be made available to the detectives in order to understand the meaning of the term 'criminal investigation'.

4.3.4 Further training is therefore recommended so that participants will understand that a crime scene is not only a place where a crime was committed.

4.3.5 It is also recommended that more research be conducted on the importance of using semen as evidence in order to overcome those challenges.

4.3.6 It is recommended that since rape is a contact crime, that participants attend a workshop on the Locard Principle. Such a workshop will help the participants to understand that useful evidence that can be used to link the suspect with the crime could be left by both the suspect and the victim through contact with each other.

Research Question 2

4.3.7 It is recommended that In-service training and workshops be provided on the topic of evidence, as some participants were unable to define what evidence is and especially what relevant evidence is.

4.3.8 Further training in the collection and preservation of evidence has to be provided to the participants.

4.3.9 It is recommended that as there is no literature about the direct challenges faced by the prosecutors when using semen as evidence the researcher recommends that the information by the participants be applied as is and be put in writing for future studies.

4.4 CONCLUSION

The research topic of the importance of semen in the investigation of rape was chosen in order to improve the skill levels of the detectives and prosecutors who are involved in the investigation and prosecution of rape cases. The recommendations by the researcher will help both South African Police Service and the National Prosecution Authority to understand the importance of semen in the investigation of rape cases, if applied properly.

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LEGISLATIONS AND COURT CASES

Criminal Law (Sexual Offences and Related Matters) Amendment Act 32 of 2007.

Criminal Procedure Act 51 of 1977

Mutangwa .N. Department of Justice prosecutor, Thohoyandou Regional Court. 2018

S v Tshiedzaedza, case number R289/2010

S v Nephawe, case number R17/12

S v Makhakha, (SS41/2012) (2013) ZAWCH C118

Nkwanyana v S, case number AR108/16

ANNEXURE 1: INTERVIEW SCHEDULE FOR THE DETECTIVES

DETECTIVES: THOHOYANDOU POLICE STATION DETECTIVES: SOUTH
AFRICAN POLICE SERVICES

UNISA

The importance of semen in the investigation of rape cases

Respondent identity number:

Date of interview

SECTION 1: DEMOGRAPHIC DATA

1. What is your rank?
2. How long have you been working for the police service?
3. To which unit of the police service are you attached?
4. Do you ever investigate rape cases?
5. Do you possess any certificates for courses offered by the police services?
6. Did you receive any training in the investigation of sexual cases?
7. Did you complete your Detective Learning Programme or are you still attending it?

SECTION 2: THE IMPORTANCE OF SEMEN IN THE INVESTIGATION OF RAPE CASES

8. What do you understand by criminal investigation?
9. What do you understand by rape?
10. What do you understand by statutory rape?
11. What is the importance of consent in statutory rape?
12. What do you understand by semen?
13. Explain at least one significant aspect regarding semen in the investigation of rape cases.
14. Explain one significant aspect regarding vaginal secretion in the investigation of rape cases.

15. Mention one biological exhibit that can be found at the scene of a rape.
16. Do you consider the body of a victim as a scene of rape?
17. Do you consider the body of a suspect as a scene of rape?

SECTION 3: THE CHALLENGES FACED BY THE COURT WHEN USING SEMEN AS EVIDENCE

18. What do you understand by the word 'evidence'?
19. What is the significance of the chain of custody in the investigation of rape cases?
20. What do you understand by the Locard Principle?
21. What do you understand by the contamination of semen as evidence?
22. Name one guideline in relation to the collection of seminal exhibits?
23. How should seminal evidence be packaged?
24. Mention at least one factor to be considered in order to ensure admissibility of semen evidence.
25. What is the significance of the chain of custody in the investigation of rape cases?
26. What do you understand by 'relevance of seminal evidence'?
27. How should semen be packaged?
28. Explain how samples of semen should be preserved.

ANNEXURE 2: INTERVIEW SCHEDULE FOR THE PROSECUTORS

PROSECUTORS: SIBASA REGIONAL COURT: THOHOYANDOU

UNISA

The importance of semen in the investigation of rape cases

Respondent identity number:

Date of interview

SECTION 1: DEMOGRAPHIC DATA

1. What is your rank?
2. How long have you been working for the National Prosecuting Authority?
3. To which unit of the prosecuting authority are you attached?
4. Do you ever prosecute rape cases?
5. Do you possess any certificates for courses offered by the National Prosecuting Authority?
6. Did you receive any training on the prosecution of sexual cases?
7. Did you complete your Prosecuting Learning Programme or are you still attending it?

SECTION 2: THE IMPORTANCE OF SEMEN IN THE INVESTIGATION OF RAPE CASES

8. What do you understand by criminal investigation?
9. What do you understand by rape?
10. What do you understand by statutory rape?
11. What is the importance of consent in statutory rape?
12. What do you understand by semen?
13. Mention at least one significant aspect regarding semen in the investigation of rape cases?

14. Mention one significant aspect of vaginal secretion in the investigation of rape cases.
15. Mention one biological exhibit that can be found at the scene of rape.
16. Do you consider the body of a victim as a scene of rape and why?
17. Do you consider the body of a suspect as a scene of rape and why?

SECTION 3: THE CHALLENGES FACED BY THE COURT WHEN USING SEMEN AS EVIDENCE

18. What is the significance of the chain of custody in the investigation of rape cases?
19. What do you understand by the Locard Principle?
20. What do you understand by the contamination of semen as evidence?
21. Mention at least one factor to be considered in order to ensure admissibility of semen as evidences in the prosecution of rape cases?
22. What is the significance of the chain of custody in the prosecution of rape cases?
23. What do you understand by relevance of semen as evidence?
24. What are the challenges associated with the use of semen during the prosecution of rape cases?
25. What is the importance of condom trace evidence in the investigation of rape cases?
26. What is the importance of the relationship between a prosecutor and detective during the prosecution of rape cases?

ANNEXURE 3: LETTER OF PERMISSION FOR FROM NATIONAL PROSECUTING AUTHORITY

Tel: +27 12 845 6000

Victoria & Griffiths
Mxenge Building
123 Westlake Avenue
Weavind Park
Pretoria

P/Bag X752
Pretoria
0001

Corporate Service Centres:

- Finance & Procurement
- Human Resources
- Development & Management
- Information Management
- Research & Policy Information
- Risk & Security

Administration



Enquiry: Ms Nozipho Manqele
Email: nmanqele@npa.gov.za
Phone: 0128456936
Date: 10/10/2018

Mr Mulaudzi Ratshilumela
86 Belladonna Street
West Acres, Nelspruit
1200

RE: APPROVAL OF A REQUEST TO CONDUCT RESEARCH IN THE NPA

Dear Mr M Ratshilumela

Thank you for showing interest in conducting research in the National Prosecuting Authority (NPA). The purpose of this memorandum is to inform you that your request to conduct research in the NPA has been approved.

The NPA appreciates that the topic has been given ethical consideration by the University of South Africa (UNISA). Please consider and/or adhere to (whichever is applicable) the below-mentioned in support of your research:

1. The request is supported by the National Prosecuting Authority, and it should be noted and understood that information about the work can only be utilized with the NPA's explicit written approval and permission.
2. The research request focuses on "An Analysis of the Importance of Semen in the Investigation of Rape Cases" and should adhere to the proposed questions in the interview guide.
3. Permission to conduct research is only limited to interviewing five prosecutors in Thohoyandou Magistrate Court, Limpopo Province.

4. This research seeks to evaluate the importance of semen as physical evidence in the investigation of rape cases, and to evaluate the challenges faced by prosecutors when using semen related evidence during the prosecution of rape cases.
5. Upon completion of the research project, it is suggested that a copy of the report be sent to the NPA for perusal and approval. This is specifically to prevent the inappropriate interpretation and publication of the latter mentioned information.
6. It is also suggested that in the event of the author publishing an article on research which contains NPA information, it be approved by the NPA.
7. Please note that the approval to conduct research in the NPA is valid for two years from the date of approval. If the research is not completed within this period, a new application is required.

In your case there will be no need to complete FORM A, which is the request for access to records of a Public Body, Section 18(1) of the Promotion of Access to Information Act, 2000, since your proposed research only involves interviews with participants.

Kindly keep the NPA informed about further developments on this research, and please direct all correspondence to the Senior Researcher on the following:

Name: Ms. Kefentse Mojaki-Moremogolo
Telephone number: 012 845 6506
E-mail address: KMojaki-Moremogolo@npa.gov.za

Dr. Silas Ramaite, SC
Deputy National Director of Public Prosecutions: Administration and OWP
Date: 10/10/2018

Re: Approval of a request to conduct research: Mr Ratshilumela

ANNEXURE 4: LETTER OF PERMISSION FROM SOUTH AFRICAN POLICE

South African Police Service



Suid-Afrikaanse Polisie

Privaatsak
Private Bag X94

Pretoria
0001

Faks No.
Fax No.

(012) 393 2128

Your reference/U verwysing:

My reference/My verwysing: 3/34/2

THE DIVISIONAL COMMISSIONER: RESEARCH
SOUTH AFRICAN POLICE SERVICE
PRETORIA
0001

Enquiries/Navrae:

Lt Col Joubert
A/C Thenga
(012) 393 3118
JoubertG@saps.gov.za

Tel:

Email:

Ms R Mulaudzi
UNIVERSITY OF SOUTH AFRICA

RE: PERMISSION TO CONDUCT RESEARCH IN SAPS: AN ANALYSIS OF THE IMPORTANCE OF SEMEN IN INVESTIGATION OF RAPE CASES: UNIVERSITY OF SOUTH AFRICA: MASTERS DEGREE: RESEARCHER: R MULAUDZI

The above subject matter refers.

You are hereby granted approval for your research study on the above mentioned topic in terms of National Instruction 1 of 2006.

Further arrangements regarding the research study may be made with the following offices:

The Provincial Commissioner: Limpopo:

- **Contact Person:** Brig M Ngoveni
- **Contact Details:** (015) 290 6206/6090

The Divisional Commissioner: Forensic Services:

- **Contact Person:** Col NM Rababalela
- **Contact Details:** (012) 421 0440/082 378 3457
- **Email Address:** RababalelaM@saps.gov.za

Kindly adhere to paragraph 6 of our Attached letter signed on the **2018-10-05** with the same above reference number.


**LIEUTENANT GENERAL
DIVISIONAL COMMISSIONER: RESEARCH
DR BM ZULU**

DATE:

2018/10/29

ANNEXURE 5: UNISA ETHICAL CLEARANCE



UNISA CLAW ETHICS REVIEW COMMITTEE

Date 20180821

Reference: ST61 of 2018

Applicant: R Mulaudzi

Dear Mr Mulaudzi

**Decision: ETHICS APPROVAL
FROM 21 AUGUST 2018
TO 20 AUGUST 2021**

Researcher(s): Ratshilumela Mulaudzi

Supervisor (s): Mr RJ Mokwena

An analysis of the importance of semen in the investigation of rape cases

Qualification: MTech

Thank you for the application for research ethics clearance by the Unisa CLAW Ethics Review Committee for the above mentioned research. Ethics approval is granted for 3 years.

The low risk application was reviewed by the CLAW Ethics Review Committee on 21 August 2018 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. The decision was ratified by the committee.

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the CLAW Committee.
3. The researcher will conduct the study according to the methods and procedures set out in the approved application.

ANNEXURE 6: EDITORS CERTIFICATE

EDITOR'S CERTIFICATE

I, Naómi AC Schulze, an independent language editor and translator, hereby certify that I was tasked by Ratshilumela Mulaudzi (Student Number: 33224668) to edit his dissertation titled 'An Analysis of the Importance of Semen in the Investigation of Rape Cases', a task that I duly carried out

In view of certain disagreements with the author as to content and validity of statements, this certificate is issued with reservations. I carried out my assignment to the best of my ability and within the constraints imposed by the author. Further judgement/evaluation of this work is fully the responsibility of the Unisa examiners and/or the supervisor, Mr JR Mokwena. If necessary, I could provide examples of the incorrect statements that I had to leave in the document against my better judgement

Thank you



(MRS) NAC SCHULZE